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THE PERSONAL RELATION IN INDUSTRY*

By Charles A. Waters

Secretary of Labor and Industry

A decade ago saw the commencement in the United States of the first studied effort on the part of employer and employe to develop the personal relation in industry. It has been commonly accepted that the personal relation was an indispensable factor in almost any other association, but so far as industry was concerned little or no attention was given to this most vital factor. Industrial conflicts were on the increase. The growing chasm between employer and employe was gradually but surely reaching the stage where bridging seemed impossible. This condition developed as a result of the marked and serious change in the method of conducting business. There was no contact between those who furnished the capital and those who furnished the labor. It we examine the history of the development of industry we find that in its earliest forms it was as simple as it afterwards become complex. Originally, the man who furnished the capital was the director, president, superintendent, and general manager of the enterprise, and in most instances actually worked with his employes, who called him, as he did them, by the first name. There was daily contact between employer and employe, and naturally if any questions or causes for conflict arose on either side, they were almost immediately taken up, discussed, and promptly disposed of in a spirit of friendly cooperation.

In contrast to this, consider if you will the gigantic business organizations which have developed during recent years. The individual gave way to the partnership, the partnership to the association, and the association to the modern corporation, with its thousands upon thousands of stockholders and its millions of employes. When we consider this remarkable development, it is at once apparent that in the very nature of the case the man who supplied the money seldom, if ever, came in contact with the man who supplied the labor. As a result of this lack of contact, the personal relationship disappeared, and gradually a great gulf grew up between the two, which annually grew wider and wider, until a decade ago when we found the number of strikes and lockouts doubling and trebling. These industrial conflicts in some instances came to be little short

*Address before Philadelphia Personnel Association, October 18, 1927

of civil war; vast sums of money were lost by both sides, untold hardships and misery followed in their wake. It was reliably estimated at that time that in a single year the losses that could be attributed to labor disturbances in this country totaled more than a billion dollars.

I was in law school about that time and recall reading a report of a study of the situation made by the Russell Sage Foundation, or under its direction. The situation was so acute that considerable thought was given at the time to the possibility of seeking legislation looking to the prevention of strikes and lockouts, and the report commanded considerable attention from all interested persons.

Singularly enough, just recently a representative of the same Russell Sage Foundation completed a study of the operation of the Canadian Industrial Disputes Law, and as an evidence of the fact that a tremendous change has taken place in this connection in the last decade, one need only consider for a moment the lack of interest in this recent report as compared to that submitted ten or eleven years ago. Today in this country strikes in industry are almost as antiquated as cotton or woolen hosiery in the apparel of our present day fair sex.

And what, may we well ask, has brought about this remarkable transformation? The formation of associations such as the Philadelphia Personnel Association answers in great measure the question. The manner in which the situation was met by the American Federation of Labor and by State and Federal governments, further answers the question. As a result of the intelligent, sagacious and shrewd manner in which the most perplexing problem was handled, we are today looking towards an almost strikeless age. The integrity of the right to strike has been insisted upon by Labor, but at the same time Labor acknowledges the fallacy of the strike as its first and best weapon, and urges in its place negotiation and conciliation. Capital no longer regards labor as its legitimate prey, and has long since discarded the idea of wringing out of labor as much as possible for as little as possible, and labor no longer regards capital as money personified in the soulless corporation.

With the induction in industry of the personnel director; liaison officer between employer and employe; the public relations officer, and the like—came the recognition of the fact that both labor and capital are men—men with muscle and men with money. Both were recognized as human beings and the industrial problem as a great human problem. The impression that labor and capital were two great contending forces arrayed against each other and that the success of the one depended upon the failure or lack of success of the other, was gradually dispelled. Far from being enemies these

two factors were recognized as partners. The standing aloof one from the other was stopped; they grew to know each other and to understand each other's point of view. Respect grew in the heart of each for the other, confidence was developed and they came to realize that they were working with a common interest for a common result. In other words, the personal relation in industry was established—and it bridged the chasm of mistrust and hatred.

Aiding in large measure in bringing about this relationship, as stated above, was the American Labor movement as represented by the trade union and by the American Federation of Labor. The Federation crystallized the sentiments and views of the workers so that they might find orderly expression and rational consideration. Manned by capable, intelligent, and far seeing leaders, organized labor met the situation without prejudice or bias blinding its vision, and established the worker as an intelligent, energetic and respectful citizen.

Further aiding in this great undertaking were the various State governments and our Federal government. Many laws in the interest of both employer and employe were placed upon the statute books. In Pennsylvania the Department of Labor and Industry was created for the purpose of serving the labor and industrial interests of the Commonwealth and enforcing the laws relating to the safety, health, and well being of employes in the industries. The work of this Department may be best visualized by a brief description of the work of the several bureaus of the Department.

The bureau of inspection conducts the examination and inspection of every room, building, or place in the Commonwealth where labor is being performed. It inspects, in order to secure compliance with the fire and panic regulations, all buildings in which public assemblies are held. It receives and examines plans of all buildings more than two stories high, and all places of assembly outside of cities of the first and second class. It inspects elevators and issues permits for their erection and repair. It inspects boilers, issues licenses, after examination, to motion-picture projectionists and apprentices, and it issues orders for removing or safeguarding against hazards that may cause accidents to employes.

The workmen's compensation bureau works in cooperation with the workmen's compensation board in administering and enforcing the laws of the Commonwealth relating to workmen's compensation. It approves or disapproves agreements and receipts in workmen's compensation cases and follows up all cases in which workmen's compensation agreements have been filed and sees that such agreements are fulfilled in accordance with the provisions thereof and with the laws of the Commonwealth.

The Bureau of Rehabilitation renders aid to persons injured in industrial pursuits by procuring artificial limbs and appliances, by arranging for training courses in public schools or educational institutions, and by providing maintenance for such injured persons during such training.

The Bureau of Employment endeavors to bring together employers and employes. Offices are placed throughout the Commonwealth where the services are rendered free of charge to all applying.

The Bureau of Industrial Relations endeavors to iron out differences arising between employer and employes. If an amicable settlement cannot be effected, the dispute is submitted for arbitration, the Department, in the event of the failure or representatives of employer and employes to name an impartial chairman of the Board of Arbitration, shall select such chairman to act as such third member.

The Bureau of Industrial Standards conducts investigation and makes surveys of industrial conditions for the purpose of developing and revising rules and regulations for the more complete enforcement of the laws for which the Department is responsible. By means of lectures throughout the Commonwealth, circular letters and individual communications, it conducts a campaign of education in the necessity of safe and sanitary working conditions.

The Bureau of Statistics is empowered to collect, compile, and publish statistics relating to labor and industry and to the organization of employes and of employers.

The Bureau of Women and Children investigates special problems connected with the labor of women and children in addition to supervising industrial home work.

Since its organization the Department has performed a notable work in bringing about a satisfactory and healthy industrial status in our Commonwealth. There is a limit, however, beyond which government should not trespass in such matters. The less interference by law, Federal or State, there is the better for all concerned. At no time should government go further in this respect than the setting up of helpful machinery Every encouragement possible should be given to the cultivation of the spirit of mutual interest, and government should see to it that the laws passed in the interest of both groups are carried out. Individual employer and individual wage earner, corporation, and union, are alike entitled to the protection of the law and must alike obey the law. Beyond this point, however, government travels a dangerous course.

To the extent mentioned above, the Department of Labor and Industry is at your service to help you in carrying out your important duties. I can well realize the many problems that confront you. They are similar in many respects to those met by one at the head of

a great department such as the Department of Labor and Industry of Pennsylvania.

The chief difference between problems facing the head of a governmental organization, such as a department of labor and industry and any other type of organization, lies in the fact that in a governmental organization changes in personnel take place at rather frequent intervals, whereas, in other types of organizations the basic personnel remains through long periods, and basic policies have been established through long experience in conducting the work of the organization.

A realization of this fact, together with the further fact that public positions do not offer as high compensation as corresponding positions in private enterprises, at first appears to threaten the efficiency of such a governmental activity. But in studying the personnel of a governmental department one finds therein men and women of exceptional ability, and although they are underpaid men and women of talent, they appear to find in their public service a satisfaction which private employment cannot give. No matter how well a governmental department may be conducted, however, it cannot meet the favor of everybody affected by its activities, and as a result any change in administration is bound to bring to the new head a number of objections to past policies, charges of inefficiency, objections to conduct of the members of the personnel, and probably very few commendations of personnel or of policy. This does not leave a new commissioner with any sort of toehold and places him in the position of having to grope around blindly until he is able to sound out the criticisms and suggestions in order to determine for himself which have merit and which have none. A new commissioner can do very little in conducting the work of the department until he has familiarized himself with the duties, powers, and functions of the department and the type of service which it is required by law to render.

After such a study, he can proceed to set up an efficient organization, being careful, however, to avoid as much as possible red tape and half-baked, unsolicited advice on system which is profusely offered today in the name of efficiency. Efficiency is a much abused word in these days. I think that many of us forget, in our eagerness to secure it, how much of value there is in what I may call the efficiency of simplicity.

Since I assumed control of the Department of Labor and Industry of Pennsylvania I have had suggestions as to efficiency in handling the department made to me in communications that would have done discredit to a ten-year old lad; or submitted to me in other ways in such a crude and garbled fashion that the authors at once proclaimed

themselves to be signally lacking in the quality they would impart to others. And bear in mind that this advice came from individuals of supposed standing or from organizations claiming to represent the last word in the teaching of efficiency.

Problems of this character are your problems with the exception that in your case they are more serious and vital in that they pertain to the employment, proper disposition, contentment and well being of the worker, who is the backbone of our great industrial structure. This makes your task a difficult one, as you have come to learn in your work that men vary in their viewpoint of life almost as widely as they vary in their personal appearances. This is aptly illustrated in the story of the building of England's great cathedral.

When Sir Christopher Wren was building St. Paul's Cathedral he passed unknown among some workmen, all of whom were doing the same kind of work. To one he addressed the question: "What are you doing"? "I am cutting stone," the man answered. The second, in answer to the same question, replied, "I am earning three shillings and six pence a day." He repeated the same question to a third man, who proudly answered, "I am helping Sir Christopher Wren to build this great cathedral."

Accordingly, the three ways a man may have of looking at his job, might be summed up in this fashion:

First, I am just cutting stone.
Second, I am only earning a living.
Third, I am doing a small part of a great work.

This diversified viewpoint would seem perplexing, but there is no disputing the fact that every human being responds more quickly to encouragement and appreciation than to the exercise of authority and the display of distrust. Hence, I feel that if you will put yourself in the other man's place and govern your actions by what you would wish to have done to you, the problem of the establishment of the personal relation in industry will be largely solved, strife and discord as between labor and capital will give place to cooperation and harmony, the interests of both will be greatly furthered, the public will be better served, and through the establishment of industrial peace our industrial supremacy will be maintained.

SAFETY AT HOME*

ACCIDENTS THAT MIGHT HAVE BEEN PREVENTED

By Julia Wieder, R. N.

Giant Portland Cement Company, Egypt, Pennsylvania

The home is the scene of 19,000 deaths of an accidental nature annually; and of hundreds of thousands of serious injuries, all due to carelessness or ignorance.

This is a direct challenge to the women of America. If accidents in industry have been materially decreased, and in many instances almost entirely eliminated, are the women in the homes going to do nothing, or are they going to take up this challenge and demonstrate their ability to fight this accusation of carelessness and ignorance?

This is the era of prevention. We no longer place the emphasis on curing diseases and bad social conditions. We do not wait until entire families come down with typhoid fever or dozens of children develop tubercular glands before we investigate the source of the milk supply. We "Moderns" make it our business to know conditions under which the milk is produced. We visit the sources of supply, we inspect and demand conditions and practices which will eliminate the possibilities of an epidemic of typhoid fever or tubercular glands.

Are we going to wait until accidents in the homes assume such alarming proportions that our accusers will inspect our homes and demand safe conditions and practices there? I hope not.

There are two ways in which we can attack the problem: first, by the elimination of hazards in the home; second, by the assuming of the responsibility for the safety of small children in their homes by their parents.

What is the first step in the elimination of hazards in the home? The statistics of the National Safety Council tell us that last year accidental deaths in the homes were caused by the following:

Falls	6200	
Asphyxiation and suffocation	4700	
Burns and scalds	4450	6400
Poisons	1050	
Fires and explosions	900	
Fire arms	750	
Electricity	300	
All other causes	650	
TOTAL	19000	

*Paper delivered at Eastern Pennsylvania Safety Conference, Allentown, Pa., Dec. 6, 1927.

This gives us something to work on.

Let us start with falls. Persons over 55 years of age are in the group suffering mostly from falls. Falls may be classed under three headings: falling down stairs, falling off ladders, and falls due to slipping. Falls on stairs may be caused by poorly constructed stairs, poor lighting, sharp turns, or lack of hand rails. These may not be entirely the responsibility of the housekeeper. But, whose fault is it, if the carpet, or the rubber treads are loose, the stairs wet or greasy, or articles left on the stairs for some one to trip over.

Ladders which are insecure or poor substitutes for ladders, as rocking chairs, boxes, or barrels cause numberless accidents. A short fall of just a few feet can cause a serious fracture, especially to old persons whose bones are brittle.

Surely we have all had personal experiences with slipping. Polished floors, especially where small rugs are used, are almost as dangerous as icy pavements. Let me say just a word about ice-coated steps. Make a firm resolution to protect yourself and all the members of your family by keeping the steps scrupulously free of ice and sleet. A fall on icy steps may cause an injury to the spine and result in untold misery for a long period of time. The spread of ashes, while very unsightly, offers a valuable protection.

We now know that 6,200 deaths are caused by falls. We have no available means of knowing how many people are temporarily or almost totally disabled by falls. In reviewing the causes of falls, we cannot but face the fact that the responsibility for many of the conditions causing falls is directly that of the mother in the home.

Asphyxiation and suffocation are responsible for 4,700 deaths. In the light of our modern knowledge of ventilation these deaths are absolutely inexcusable. If our homes were always properly ventilated, there would be no deaths by asphyxiation, as a current of air quickly eliminates gas saturation with its attendant dangers.

As a further protection against this group of accidents we must make certain that all appliances and connections relative to illumination by gas and the use of gas stoves are in perfect condition. Any unusual odor connected with gas appliances is indicative of danger and should receive immediate attention. Asphyxiation by coal and carbon monoxide belong to this group. Well protected flue holes and clean chimneys with frequent inspections of all stoves and furnaces will almost eliminate escaping gases.

Carbon monoxide is one of the most deadly poisons. It is produced by the exhaust gases from a running automobile engine. Never, for even a very short time, run the engine of a car in a closed garage.

The next group is the most tragic one, as children under fifteen years of age make up the group suffering from burns and scalds.

poisons, fires, and explosions. The National Safety Council says "Practically all accidents to children are due to carelessness, thoughtlessness, neglect, and disorderly habits on the part of parents or other adults." This is a grave accusation. Again quoting the National Safety Council. "More children under four years of age die from burns and scalds than from any other kinds of injuries."

Now let us see if these accidental deaths, numbering 6,400 a year, are our responsibility. Who places kettles with hot liquids in them too near to the edge of the stove, table, or sink? Who places tubs or boilers of hot water on the floor of a room in which there are small children? Who buys non-safety matches and stores them where a child may reach them? Who hangs curtains and draperies where a breeze will blow them against a gas jet, or hangs clothing to be dried over the stove, or on the oven door? Who stores away old papers or combustible rubbish? Who allows young children to have fireworks? Who puts ashes in wooden boxes or pours kerosene into a stove? Who forgets to put out of the reach of children, poisons, drugs, and such things as lye and caustic soda? In answering these questions truthfully, we come to the realization that we, the adults, are unquestionably responsible for these dreadful accidents.

Firearms cause 750 deaths annually. Remember these figures are confined to accidents in the home. Is it necessary to harbor fire arms, especially loaded ones in the home? Of the great numbers of persons who have a loaded revolver as a means of protection in the event of robbery, how many ever have occasion to use them? The loaded firearm is a graver potentiality than the robber. You can all recall persons being shot, who were not burglars but members of the family. The possibility of children playing with firearms is an excellent reason why firearms should never be loaded until they are to be used.

The last cause on our list is electricity and it causes 300 deaths each year. Under this heading would come all the electric irons, fans, cleaners, etc., as well as electric ranges. The great danger lies in defective and worn appliances and in the ignorance of what constitutes a conductor of electricity. Good general rules are: 1. To discontinue the use of any defective electrical implement until it has been repaired. 2. Never touch the metallic part of any electrical appliance with wet hands, as water or dampness of any kind is a conductor of electricity.

When we have eliminated the hazards in the home we cannot feel certain that accidents will not occur. We must still assume the responsibility for the safety of small children. We must anticipate their actions. They always do the unexpected. Let us not be satisfied when we have fixed a gate at the head of the stairs to keep the

child from falling, or have picked up stray buttons, or pins, which the small child might swallow. Let us ever bear in mind that we must educate our babies from their infancy. Children learn very quickly by experience and imitation. Let us take advantage of this knowledge and allow them to experience things under our guidance. You have seen a careful mother guide a child's hand near to the radiator or stove and allow it to feel the heat and caution the child by saying "HOT." If you take advantage of every such opportunity the child will be taught to think of its own safety. We ourselves must ever be watchful that we do things in a safe manner, so that when the child imitates our actions it will learn to do things safely.

Industry is making a concerted effort to reduce accidents. Everywhere workers are being taught to cultivate the habit of thinking in terms of safety, and rules of good housekeeping. Every day workers are being discharged because of their careless habits. Even the children in our schools are being taught safety, yet adults in the homes seem to be absolutely unaware of the meaning of the term "SAFETY FIRST." Let us take the accusation of the National Safety Council to heart and make every effort to bring before our mothers a thorough knowledge of the causes and the prevention of accidents in the home.

SAFETY EDUCATION

By Harry D. Immel

Director, Bureau of Inspection

Of all agencies that may be employed for elimination of industrial accidents the plant safety organization stands out preeminently. In previous radio talks on industrial safety and on the work of the Bureau of Inspection of the Department of Labor and Industry of Pennsylvania toward that end, I have dwelt on the importance of mechanical safeguards and on the bigness of the little things which may contribute to industrial safety and which too frequently are neglected. I have told you how the State factory inspector can aid you in solving of your safety problems. For this talk, with which I propose to conclude my present series, I have reserved a discussion of safety education, without which all other safety work is bound to fail to produce maximum results.

Some months ago I was called on to address a safety meeting in a state normal school. One of the measures considered was the safeguarding of a railroad grade crossing over which school children had to pass. It was suggested that the railroad company be asked to install a signal bell. A neighboring township supervisor expressed doubt of a warning bell meeting the requirements. He said that a similar device had been put on a railroad grade crossing in his township, and only a few days afterward, a farmer of the community had driven to the supervisor's home in a state of great excitement to complain that he had almost lost his life on the crossing. "Why," said the supervisor, "we have just had a signal bell put on that crossing." "That's just the trouble," exclaimed the farmer indignantly, "your darned old signal bell made such a racket that I didn't hear the train coming."

The supervisor's story naturally furnished amusement to the audience at the safety meeting. Yet a few minutes later, in the presentation of a pageant by little children from the primary grade of the local schools, a half dozen tots came onto the stage attired in flimsy night robes and carrying large lighted candles. The candles were placed on the floor and the children performed a drill about them. I expected at any moment to see one of the small performers blunder into a candle. My pleasure in the entertainment was ruined by the thought of what could so easily happen if one of the children should come into contact with one of those lighted candles.

Industrial safety is the first concern of the Bureau of Inspection of the Department of Labor and Industry. Ninety per cent of its

work is directed toward the advancement of safety. Realizing that many of my hearers may have no direct connection with industry, in this talk on safety education I purposely have selected two examples not related to industry, to impress upon everyone just how general is the need for teaching safety.

The case of the farmer and the grade crossing bell may be considered as an extreme example of an absurd use of a safety device, but actually the farmer's failure to make intelligent use of a safety device is not much more absurd or amazing than similar ignorance seen every day on every hand, both inside and outside of industry.

Of even greater concern is the other incident, in which educated persons, sitting down to consider advancement of safety, reveal such gross ignorance of elementary safe practices. And this example is by no means extreme. In the playlet, of course, electric candles, or unlighted ones, could have been substituted almost as effectively for those with open flames and all hazard removed. The only reason why they were not substituted was because nobody recognized the hazard.

Some accidents are not preventable by mechanical safeguards. Nor can any set rules or regulations be made to ward them off. Their avoidance depends on the development of a definite safety sense in the individual. The development of that sense is the big accident prevention problem in industry. The mechanical safeguard fails to accomplish even what reasonably may be expected of it unless the worker is taught how to use it, and why he should use it. Plant safety regulations prevent accidents only when the workers have been taught the necessity for such regulations.

A large number of industrial workers were in industry before safety was recognized as the important factor that it is in factory operation. These workers are out of school, their minds are static,—past the plastic state of youth, and to develop in them an instinctive consideration of safety is especially difficult. We hope that the coming generation of workers will enter industry mentally prepared to consider safety in its proper relation to all other elements contributing to industrial success. When that day comes our task of preventing accidents will be greatly simplified.

No method of imparting safety education to workers in industry has been found to be so effective as the individual plant safety committee method. Its variations are infinite, but whatever the variations may be, the same principle is back of each, and that is the guidance of workers individually and collectively to safer methods of performing their daily tasks.

The form of safety organization best adapted to any factory depends on the size of the establishment and on the sort of work performed in that factory. On that account I will not enter into a

discussion of forms of safety organizations, but I would call your attention to a special bulletin on Safety Organizations and Accident Statistics, published last year by the Department of Labor and Industry of Pennsylvania. It outlines several plans of safety organization for plants of various sizes. This bulletin is a composite of ideas successfully carried out by leading safety engineers of Pennsylvania. It should be quite helpful to employers and plant safety directors, and may be obtained by applying to any inspector of the Pennsylvania Department of Labor and Industry, or by writing to the central office at Harrisburg.

In this brief discussion I will touch on only a few of the more common errors which should be avoided if your safety organization is to achieve anything in the way of accident reduction. The accomplishments of safety organizations in some plants, where hazards seem to be greatest, are little short of miraculous. In other factories nothing is accomplished. There is some reason for this difference that may be discovered by a little study.

Sometime ago my attention was called to the large number of accidents in a Pennsylvania establishment which was credited with having a safety organization and a safety director. Visiting this plant I found that there existed a safety committee, composed of representatives of the management and of the workers, which met at frequent intervals. I was puzzled to understand the numerous accidents until an examination of the minutes of the committee meetings revealed to me that only on rare occasions was a representative of the management present. The worker committeemen met faithfully and submitted many practical recommendations for advancement of safety. These were almost invariably pigeonholed and forgotten. I found the safety engineer to be a competent man, but thoroughly discouraged by the apathy of the management toward safety recommendations involving any expense.

I am glad to be able to say that this is not at all a common reason for the failure of safety committees. Usually the management is quite ready to do its part if the workers show the slightest appreciation and willingness to cooperate.

In contrast to the case I have just cited is that of a large hydroelectric company with a good record for accident prevention. I participated in a recent meeting of the safety committee of that plant. Management and workers were both represented. In the course of the meeting, one worker after another arose to make some safety recommendation. All were carefully noted by the secretary. I was most impressed, however, when the secretary read a list of the recommendations received at the previous meeting and reported that all of them had been carried out.

Not every plant is large enough to warrant employment of a safety manager, or even to permit of the formation of a safety committee. No factory, however, is so small but that some individual in it can be assigned the duty of safety promotion, even if it is a part-time duty. Care should be taken, though, that this responsibility is not given to some worker whose other tasks are so exacting that he has no real time to devote to directing safety.

Your safety committee or your safety man, or both of them, should investigate all accidents with a view to guarding against any more similar accidents from the same cause. Such investigations should be most searching, and first-hand information should be obtained. It is not at all uncommon to find that a foreman or superintendent has distorted the facts of an accident in order to shift blame from himself.

I wish to say a word particularly to those who are foremen or hope some day to be foreman, with reference to the foreman's responsibility for accident prevention. We, in the Bureau of Inspection, regard the foreman as the key man in every safety organization, large or small. In plants lacking any form of safety organization, practically the entire responsibility for industrial safety rests on the foreman.

That day is past when the foreman was measured solely on his ability to get production. In the new industrial scheme it is even more important that the foreman guard his skilled workers from injury than that he preserve expensive machinery from abuse. It is much less costly to repair or replace broken machinery than it is to replace crippled workers. The foreman's personal attitude towards safety is so vital that industry today is coming to the view that the foreman who cannot or will not practice safety himself, and instill it into his men, is not fit for his job. Nothing is more discouraging to the factory inspector than to go into a shop, call attention to the need of safety measures, and then to have to listen to loud protests from some foreman. What can be expected from the individual workers in a gang in the way of safety if that is the attitude of the foreman?

In the last analysis, of course, the success or failure of the safety organization depends on the individual worker. It is vital that each worker be made to feel that he or she is a unit in the organization, and that failure of any individual to do his or her part endangers the success of the whole. The safety organizations which accomplish most are those in which this spirit is fostered.

Is safety education in industry worth while? I have before me the report of the Bureau of Workmen's Compensation of the Pennsylvania Department of Labor and Industry for the first ten months

of 1927. It shows 1,722 fatal and 133,984 non-fatal accidents in Pennsylvania in that period. We take what consolation we may from the fact that this total is 10 less in fatal and 14,752 less in non-fatal than for the corresponding period of 1926. But there certainly is no indication here that our work for accident reduction may be permitted to lag. Compensation awards for the accidents of the first ten months in 1927 amount to $11,131,977.00. But compensation payments represent only a comparatively small proportion of the total economic cost of industrial accidents. There must be added the immediate loss of wages and of future earning power of injured workers, and the loss to the employer through labor turnover. These are losses that, were it possible to put them into figures, would be fairly staggering.

Even less can our imagination grasp the extent of the sorrow and suffering which falls upon the afflicted homes of the victims of our annual industrial casualty list. Few of us have prepared for that rainy day. The accident which robs us of the family bread winner or sadly reduces his earnings scarcely ever finds us ready to meet the situation. There follows inevitably the sacrifice of those little luxuries which contribute so much to happiness in the home, while plans for education of children and for accumulation of a reserve for old age perhaps all must be put aside, and mere day to day existance becomes a sufficient concern.

In a day in which all the efforts of science are being concentrated on elimination of waste and the conservation of our resources, in which man's humanity to man stands forth as a shining light, no service seems more worth while than that of imparting safety education to every man, woman, and child in this great industrial Commonwealth.

NEW SCHEDULE OF BENEFITS UNDER THE WORKMEN'S COMPENSATION LAW

By William H. Horner

Director, Bureau of Workmen's Compensation

On Januray 1, 1928, the amendments to the Workmen's Compensation Law, increasing the compensation benefits, and reducing the waiting period from ten to seven days covering the beginning of compensation payments, became effective. The increased benefits and reduction in waiting period do not apply to accidents occurring prior to midnight December 31, 1927.

In order that employers, insurance companies, and the public generally may be well informed how these increased benefits apply in accident cases, a table has been compiled by the Bureau of Workmen's Compensation showing the compensation rates which apply to accidents occurring on and after January 1, 1928, as well as accidents occurring prior to this date.

A recent study made from the records in the Bureau shows that during the first nine months of the year 1927, the average time elapsing between the dates accidents occurred and the dates the reports were received by the Bureau was eighteen days for all employers, operating as self insurers, and insurance companies; the average time from the date of accident, required by these same companies for filing agreements for the payment of compensation with the Bureau, was forty-eight days. In view of the fact that the waiting period for the beginning of compensation payments has been reduced from ten to seven days makes it of the utmost importance that these figures be very materially reduced in order to insure the payment of compensation with the least possible delay. It is estimated that the reduction in the waiting period will increase the number of compensable cases approximately twenty per cent.

The closest cooperation on the part of employers, insurance carriers and the Bureau of Workmen's Compensation is therefore necessary in order that the Compensation Law may be satisfactorily administered.

Following is the table showing how the old and new schedule of compensation benefits apply in accident cases:

NEW COMPENSATION SCHEDULE

	Prior to January 1, 1928	After January 1, 1928
TOTAL DISABILITY:		
Percentage of wages	60 per cent	65 per cent
Maximum per week	$12.00	$15.00
Minimum per week, or actual wages, if less	6.00	7.00
Maximum amount	$5,000	$6,500
Maximum period	500 weeks	500 weeks
PARTIAL DISABILITY:		
Percentage of loss in earning power	60 per cent	65 per cent
Maximum per week	$12.00	$15.00
Maximum period	300 weeks	300 weeks
SPECIFIC SCHEDULE:		
Allowance for permanent injuries		
No change in number of weeks but percentage changed	60 per cent	65 per cent
DISFIGUREMENT: Wages	60 per cent	65 per cent
Maximum period	150 weeks	150 weeks
Permanent loss of use of finger or thumb to be considered as equivalent to the loss of such finger or thumb. Compensation per week under Section 306 (c).		
Maximum	$12.00 During Disability	$15.00
Minimum or actual wages, if less	6.00	7.00
WAITING PERIOD:	10 days	7 days
DEATH:		
Maximum period (Except as noted under orphaned children)	300 weeks	300 weeks
BASIC WAGE WEEKLY:		
Maximum	$20.00	$24.00
Minimum	10.00	12.00

SCHEDULE OF BENEFITS:	Prior to January 1,1928 Per cent	After January 1, 1928 Per cent	Max. Weekly
Widow—no children	40	44	$10.00
Dependent widower	40	44	$10.00
Widow or widower—1 child	50	55	$12.50
Widow or widower—2 children	60	62½	14.00
Widow or widower—3 children or more	60	65	15.00
Orphaned children—1 or 2	30	33	7.50
Orphaned children—3	40	44	10.00
Orphaned children—4	50	55	12.50
Orphaned children—5	60	62½	14.00
Orphaned children—6 or more	60	65	15.00
ORPHANED CHILDREN:			
(Compensation of each child to continue after 300 week period until such child reaches the age of 16)			
One child	15	17½	$3.75
2 children	25	27½	6.25
3 children	35	38½	8.75
4 children	45	50	11.25
5 children	50	55	12.50
6 or more	50	60	13.75
Parents (one or both) Partially dependent	20	25	5.00
Parents (one or both) Totally dependent	40	45	10.00
*Brothers and Sisters 1	15	15	
*Brothers and Sisters 2	20	20	
*Brothers and Sisters 3	25	25	
Burial Expense	$100.00		$150.00

*Only brothers and sisters under sixteen years of age actually dependent to any extent upon decedent for support at the time of his death are covered by the Act.

SCHEDULE OF HEARINGS OF THE WORKMEN'S COMPENSATION BOARD FOR 1928

Harrisburg	January 17
Scranton	January 18
Wilkes-Barre	January 19
Shenandoah	January 20
Philadelphia	January 24-25-26
Pittsburgh	February 15-16-17
Harrisburg	March 13
Philadelphia	March 14-15-16
Pittsburgh	April 3-4-5
Harrisburg	May 15
Scranton	May 16
Wilkes-Barre	May 17
Shenandoah	May 18
Philadelphia	May 22-23-24
Pittsburgh	June 27-28-29
Harrisburg	July 10
Philadelphia	July 11-12-13
Pittsburgh	September 12-13-14
Harrisburg	October 2
Philadelphia	October 3-4-5
Scranton	October 9
Wilkes-Barre	October 10
Shenandoah	October 11
Pittsburgh	November 14-15-16
Harrisburg	December 4
Philadelphia	December 5-6-7

INDUSTRIAL BOARD

NEW REGULATIONS FOR POLISHING AND GRINDING WHEELS

The Industrial Board has recently held public hearings on the proposed new regulations for polishing and grinding wheels. These hearings were held in Philadelphia, Harrisburg, Wilkes-Barre, Erie, and Pittsburgh in the order named, and educed some merited criticism. Most of the criticism centered about the prohibition of steel castings in the construction of fabricated hoods, the inclusion of swing frame and portable grinders in the requirements for exhaust systems, and the specification of two inches displacement of water in a U-tube for exhaust systems instead of a recommended four inches.

All of the criticism will be compiled and carefully considered by the Department and its committee before the regulations are finally drawn up for approval.

Attendance at the various hearings was not as representative as was desired by the Department except that at Pittsburgh a rather large assembly was present.

A word at this point on the subject of public hearings may not be amiss. It is the hope of the Industrial Board, since all regulations approved by it and administered by the Department directly concern employers, employes, and the public, that these interests will take advantage of the opportunity to attend public hearings and place themselves on record as being either for or against the particular rules under consideration. This applies to all regulations proposed for adoption as it is only in this way that the Industrial Board can know the sentiment of the majority.

Rules and Interpretations Approved December 14, 1927

The following rules and interpretations were approved by the Industrial Board at a meeting held December 14, 1927.

Rules

1. Amendment to Rule 219 (j) (NI) of Elevator Regulations.
   (a) Present paragraph (j) rescinded and replaced by following amendment:

   "Shaftways and counterweight runways of elevators serving the street level shall extend to the pit floor of the lowest cellar or basement, as the case may be, and the bottoms of shaftways shall be covered with concrete or other approved fire resistive materials to a thickness of at least 4".

"Where shaftway construction begins above the street level, the pit construction shall be of ample strength and adequately supported to withstand the impact of a free falling elevator with full load. The same protection shall be given to protect the lower part of the building from falling counterweights. The under clearance and pit depths of such elevators shall be as required for other elevator pits. Counterweights of such elevators shall be provided with safeties."

Interpretations

1. Interpretation of Elevator Regulations requiring fireproof shaftway.

(a) It was decided to extend the interpretation approved September 23, 1925, exempting certain buildings from the requirement for fire-resistive shaftways to buildings, the floors of which are constructed with spacing between boards in order to permit of free circulation of air throughout entire building in certain processes of industry.

2. Interpretation of Rule 241 (a) of Elevator Regulations.

(a) The following Interpretation was approved:

"Where water conditions exist which make it impossible to obtain specified pit depth, lesser distance will be permitted when application is made to the Industrial Board provided that the clearance between the lowest point of the elevator car, when resting on fully compressed bumpers, and the level of the pit floor is not less than two feet."

REVIEW OF INDUSTRIAL STATISTICS

Prepared by
The Bureau of Statistics

THE LABOR MARKET

The number of persons placed in employment by State Employment offices during November, 1927, was 2.5 per cent less than during the preceding month and 53.5 per cent less than during November 1926. Reports from State Employment offices show that work was secured for 2,222 men and 991 women during November.

The demand for workers, which was aided by seasonal influences, was fairly strong during October but subsided somewhat during November. Calls from employers for workers during November numbered 4,294, a decrease of 4 per cent compared with October. The November demand for workers was 53.9 per cent less than a year ago.

Applicants seeking employment through State Employment offices during November were nearly 2 per cent less than during October, but the ratio of supply to demand remained practically unchanged. The ratio of applicants per 100 openings for October was 204, and for November the figure rose to 209. In other words, there are more than 2 workers available to fill every employment opening recorded. In November, 1926, this ratio was 143 to 100.

Within certain industry groups there was some scarcity of workers. The demand for experienced women operators in the clothing and textile industries was greater than the available supply. A few farm workers and quarry workers also were needed. However, the total number of workers needed to supply the deficiencies in these groups was small.

Due to the continuance of weather favorable to the construction industry, the demand for workers in the building trades continued good. Shipbuilding work has slackened and employment for those who follow this trade is increasingly hard to find. The recent closing of one large shipyard has greatly increased the number of idle shipyard workers.

Although activity in the clothing industry continues good, the demand for clothing workers was smaller than last month. Textile mills seem to be operating nearly full time.

Operations in metal manufacturing plants were slower, and there was little demand for new workers. Car shops were busier, and some railroads were recalling furloughed shopmen.

Restaurants needed a few additional workers to care for the in-

creased shopping season trade. Christmas buying has increased employment opportunities for store clerks, but the demand for workers is much lower than last year.

Unskilled labor continues about 40 per cent unemployed. The demand for temporary odd-job workers at this time of the year helps to relieve this situation somewhat. The employment of women workers continued fair, although the demand for help fell off during November.

EMPLOYMENT, WAGES, AND HOURS WORKED

The industry classifications used in the employment and wage tables have been revised and rearranged. The employment and wage tables for November are the first published with the revised classification. The former seven industry group classifications have been replaced by ten new groups. Metal manufacture has been divided into two industry groups, metal products and vehicles. The textile, food and tobacco, construction and contracting, chemical, and building materials group have been retained and are somewhat revised and enlarged. The name of the building materials group has been changed. The old miscellaneous industries group has been broken up into three new groups namely, lumber products, leather and rubber products, and paper and printing. Ten new industries have been added, and a few old industries have been renamed in order to more accurately identify the industry.

The classifications now conform more closely to those used in the report of the U. S. Census of Manufactures. It is hoped that the new arrangement of employment and wage reports will add to their value and utility.

The work of industry reclassification was performed by the staff of the Division of Statistics and Research of the Philadelphia Federal Reserve Bank with whom the Department of Labor and Industry has been affiliated since 1923 in the collection and publication of monthly employment and wage reports from manufacturing concerns. The Department of Labor and Industry is indebted to the Federal Reserve Bank for its constructive contribution toward the betterment of employment and wage statistics for Pennsylvania.

Attention is also called to the publication for the first time of employment and wage figures for local city areas. This table is prepared by the Philadelphia Federal Reserve Bank and is published in compliance with recently received requests for employment and wage information of a local character.

Employment in manufacturing industries which has been on a steady decline since March, 1927, took another slight drop in November. Reports received during November from 833 firms engaged

in all lines of manufacturing show nearly 2,000 fewer workers on payrolls during November than in October. The employment decline for the 833 firms amounted to 0.7 per cent. Earnings of workers also were slightly lower than in October, shownig a loss of 0.6 per cent. This percentage drop in average earnings coincides with the percentage reduction in working hours between the two months. Lost time due to the partial observance of Armistice Day and Thanksgiving Day accounted for the reduced earnings in many instances.

Employment in the metal industries was decidedly lower. Twelve of 13 metal industries reported decreased employment, varying from 11.6 per cent for blast furnaces to 0.7 per cent in the stove and furnace industry. Of the 10 firms reporting for the blast furnace industry 7 reported decreased employment. One firm in the Pittsburgh district laid off 160 men during November. The 9 per cent drop in employment reported for the electrical machinery and apparatus industry was limited almost entirely to the radio and battery industries. Christmas orders being completed production dropped sharply. Employment in other electrical manufacturing lines seemed about normal. Engine and pump manufacturers were working a short week, and average earnings for this group were low.

In the vehicles' group, automobile body factories and railroad car repair shops show some slight improvement. The Ford industries are not included among this group of reporting firms, and the report here given for the automobile industry does not reflect the recent activity of Ford plants.

Employment in shipyards was 5 per cent lower than last month.

The decrease of employment in cotton mills is attributed to the wide-spread movement toward the location of mills in the southern fields. Earnings of cotton mill workers in Pennsylvania show improvement over last month.

The men's clothing industry is seasonally slack. Nine of 11 firms in the men's clothing group report decreased employment. Many factories are working on short-time schedules. The women's clothing industry shows some improvement over October, but generally the industry is in its dull season.

The confectionery and cigar industries report a slightly lower volume of employment. Evidently pre-Christmas orders are less than last year. The off-season was evident in reports from furniture factories. Employment in the furniture industry was 16.5 per cent lower than in October. One company furloughed 350 employes during November. Wooden box manufacture also was dull. Cigar box makers reported that their factories were operating only 4 days a week.

A reduced average of weekly earnings was reported by 18 of 23 shoe factories. Holidays were chiefly responsible for the reductions,

although some factories report that they are working only 4 to 4½ days a week regularly.

The large percentage gain in employment shown for the leather products group was due to the activity of one firm which more than doubled its force during November.

The big drop in earnings for the rubber tire and goods industry was due to a temporary shut down of one large plant November 11th and 12th.

The employment report by city areas shows that employment in Sunbury made the greatest gain during the month. A gain of 10.1 per cent over October was reported for that city. Johnstown, with a decline of 8.2 per cent, showed the greatest loss in employment. In other cities there was very little change in employment.

Average weekly earnings of $30.25 per week for workers in Erie were the highest reported during November. Earnings of workers in Scranton averaged $19.21 per week and were the lowest reported. It is quite likely that the relatively large number of women employed in the manufacturing industries in and about Scranton tends to lower the rate of average earnings for that city as compared with other places.

INDUSTRIAL ACCIDENTS AND COMPENSATION COSTS

During November, 1927, the Bureau of Workmen's Compensation received reports of 196 fatal and 13,087 non-fatal accidents that occurred to workers during the regular course of their employment. The November fatality total is the higest reported during any month this year and is an increase of 33 over the number reported during October. The principal reason for this increase in fatalities is the fact that the November report includes reports of 26 deaths of workers who were killed in the disaster at Pittsburgh on November 14th when the large gas holder of the Equitable Gas Company exploded.

The remarkable decline of non-fatal accidents that has been characteristic of the reports for the last 8 months continued throughout November. The total of non-fatal accidents for November was 12 per cent less than the number for the same month last year.

The summary report of industrial accidents for 11 months in 1927 compared with the report for the corresponding period in 1926 shows an increase of 2 fatal accidents but a reduction in non-fatal accidents amounting to 16,514, or slightly more than 10 per cent. The accident figures for the two periods are as follows:

	Fatal	Non-fatal
11 months, 1926	1,913	163,585
11 months, 1927	1,915	147,071
Increase or decrease in 1927	+2	—16,514

The fact that this decrease of non-fatal accidents is not confined to any one industry group makes it all the more remarkable. The coal mining industry shows a 0.4 per cent reduction in non-fatal accidents; steam railroads show an 11 per cent decline; and the general industry group, which includes all industries over which the Department of Labor and Industry exercises safety supervision, shows a decrease of 14 per cent.

The 196 fatalities reported for November classified industrially show the following totals for each principal industry group: construction and contracting 22, or 2 less than last month; manufacturing 36, an increase of 4; anthracite coal mining 37, a decrease of 15; bituminous coal mining 33, an increase of 10; transportation 17, also an increase of 10; public utilities 20, an increase of 16; quarries 6, an increase of 2; trade 7, an increase of 3; state and municipal 9, an increase of 2; and miscellaneous 9, an increase of 3.

The anthracite mining industry showed the largest reduction in fatalities compared with last month, and the public utility group showed the greatest increase. The large increase of fatalities for the public utility group is due to the deaths resulting from the gas holder explosion. It is true that only 4 of the 26 persons killed in that accident were public utility employes, nevertheless when maintenance work is done by contract, all accidents arising out of that maintenance work are charged to the industry having the work done. This accounts for the fact that the deaths of 12 employes of the construction company doing the repair work on the tank were charged to the public utility industry.

Of the 26 persons killed in the gas tank explosion accident, 7 were engaged in pottery manufacture, 4 were gas company employes. 12 were construction workers, 2 were retail store employes, and 1 was an employe of a junk and scrap concern. Six of the 26 men killed were single, 18 were married, and in 2 cases the marital condition was not reported. The surviving dependents of the 26 men killed number also 26. Of these, 18 were widows and 8 were children. Eight of the men killed left no dependents. The fact that there were but 8 dependent children was an unusual as well as a fortunate circumstance.

In addition to the 26 industrial fatalities resulting from this explosion, approximately 175 non-fatal accident cases attributable to this same cause were reported to the Department. The varying severity of injury for these cases cannot be determined definitely at this time. All the injuries, however, are sufficiently serious to disable the workers for 2 days or more, otherwise these cases would not have been reported to the Department.

Of the 196 persons killed in all industries during November, all

were male. Sixty-two left no dependents. One hundred thirty-one were married and in addition to their widows were survived by 129 dependent children. Two were widowers with 7 surviving children. The relationship of the dependent in one other case was not reported.

Falling objects was the chief cause of fatal accidents during November. Of the 53 men killed by falling objects, 3 were engaged in the construction industry, 2 in metal manufacturing, 44 in coal mining, 2 in quarrying, 1 in public utilities, and 1 in retail trade.

Cars and engines with a total of 37 deaths was the second highest cause of fatal injuries. Of those killed by cars and engines, 1 was employed in the construction industry, 5 in manufacturing industries, 16 in coal mines, 1 in a quarry, 13 on steam railroads, and 1 on a street railway.

Explosive substances killed 32 workers during the month and was the third highest cause of death in industry. Twenty-six of the deaths attributed to this cause were the result of the gas tank explosion. Four were killed by blasts in anthracite mines; one was overcome by fumes and smoke during a fire; and another, a municipal employe, was killed by an explosion of sewer gas while he was making repairs to a sewer.

Other principal causes of fatal injuries during the month were falls of persons 20, motor vehicles 13, elevators and hoists 7, electricity 6, and cranes and derricks 5. Power working machinery was the only cause group to show a clear record for the month, no fatalities due to this cause were reported.

Many of the fatalities reported during the month, it seems, could have been prevented had there been a common and correct understanding of signals between men working on the same job. This is especially true of the crane and derrick, and elevator and hoist accidents. There are at least 6 deaths in these 2 groups that were the direct result either of a misunderstanding of signals or of careless operation. One company in reporting the death of a floor-man in the crane gang stated that because of persistent carelessness, the floor-man previous to his death had sustained minor injuries on 32 different occasions. A persistently careless person has no place in a crane gang, and the worker should have been given other employment long before the accident occurred which resulted in his death.

Compensation agreements were approved in 5,654 cases during November, 1927, involving payments to injured workers or their dependents in the amount of $1,004,456. This amount was made up as follows:

148	fatal cases	$510,697
207	permanent disability cases	184,903
5,299	temporary disability cases	308,856

The permanent disability cases compensated during November included awards for the loss, or loss of use of, 31 eyes, 1 arm, 14 hands, 105 fingers, 69 phalanges, 11 legs, 6 feet, and 9 cases of miscellaneous permanent disability.

The average length of disability for the temporary disability cases compensated during November was 41 days compared with 48 days for October cases. The duration of disability for all temporary disability cases compensated during 11 months in 1927 averages 44 days.

Compensation awards for the first 11 months of 1927 total $12,127,785, or an average of $1,102,526 per month. Compensation awards for the first 11 months in 1927 are 2 per cent higher than those for the corresponding period last year.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF NOVEMBER, 1927

Industries	Persons Applying for positions			Persons asked for by employers			Persons sent to positions			Persons receiving positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	8,971	5,978	2,993	4,294	2,768	1,526	4,296	2,822	1,474	3,213	2,222	991
Total: Industrial Group (Skilled)	3,163	2,313	850	1,247	856	391	1,244	905	339	726	558	168
Building and Construction	702	702	----------	364	364	----------	382	382	----------	253	253	----------
Shipbuilding	63	63	----------	38	38	----------	38	38	----------	24	24	----------
Chemicals and Allied Products	2	2	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clay, Glass and Stone Products	1	1	----------	1	1	----------	1	1	----------	1	1	----------
Clothing	21	----------	21	41	----------	41	8	----------	8	4	----------	4
Textiles	22	19	3	28	----------	28	2	----------	2	2	----------	2
Food and Kindred Products	20	18	2	13	1	12	3	1	2	2	1	1
Leather, Rubber and Composition Goods	30	15	15	17	1	16	16	1	15	13	1	12
Lumber, Woodwork and Furniture	4	4	----------	3	3	----------	3	3	----------	2	2	----------
Paper and Printing	6	5	1	----------	----------	----------	----------	----------	----------	----------	----------	----------
Metals and Metal products	539	536	3	217	216	1	235	233	2	141	140	1
Mines and Quarries	4	4	----------	10	10	----------	3	3	----------	3	3	----------
Transportation and Public Utilities	414	402	12	103	100	3	107	103	4	69	68	1
Hotels and Restaurants	199	62	137	89	21	68	96	28	68	45	12	33
Wholesale and Retail Trade	219	78	141	102	21	81	81	23	58	47	12	35
Miscellaneous	917	402	515	221	80	141	269	89	180	120	41	79
Total: Other Groups	5,808	3,665	2,143	3,047	1,912	1,135	3,052	1,917	1,135	2,487	1,664	823
Professional and Technical	388	312	76	87	68	19	123	90	33	45	36	9
Agriculture	8	8	----------	11	11	----------	12	12	----------	5	5	----------
Semi-Skilled	1,874	784	1,090	726	141	585	724	159	565	419	122	297
Unskilled	2,491	2,343	148	1,477	1,446	31	1,457	1,417	40	1,296	1,271	25
Casual and Day Workers[1]	1,047	218	829	746	246	500	736	239	497	722	230	492
October, 1927	9,118	6,018	3,100	4,475	2,792	1,683	4,488	2,909	1,579	3,297	2,260	1,037
September, 1927	12,668	8,627	4,041	5,136	3,202	1,934	5,321	3,466	1,855	3,963	2,657	1,306
August, 1927	10,053	7,109	2,944	4,345	2,988	1,357	4,530	3,147	1,383	3,544	2,571	973
November, 1926	11,924	7,726	4,198	8,313	5,783	2,530	8,321	5,970	2,351	6,910	5,090	1,820
November, 1925	11,011	8,579	2,432	7,816	6,141	1,675	8,185	6,568	1,617	7,171	5,803	1,368
November, 1924	10,402	7,352	3,050	6,345	4,796	1,549	6,213	4,842	1,371	5,465	4,234	1,231

[1] The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

Group and Industry	No. of Plants Reporting	Number of wage earners—week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Nov. 15 1927	Oct. 15 1927	Per cent Change	Nov. 15 1927	Oct. 15 1927	Per cent Change	Nov. 15 1927	Oct. 15 1927	Per cent Change
ALL INDUSTRIES (55)	833	272,432	274,404	— 0.7	$6,915,765	$7,007,984	— 1.3	$25.39	$25.54	— 0.6
Metal Manufactures:	238	101,058	103,134	— 2.0	2,665,102	2,742,163	— 2.8	26.37	26.59	— 0.8
Blast Furnaces	10	2,270	2,567	—11.6	64,298	72,701	—11.6	28.33	28.32	+ 0.0
Steel works and rolling mills	44	55,012	55,463	— 0.8	1,468,248	1,461,622	+ 0.5	26.69	26.35	+ 1.3
Iron and steel forgings	10	1,751	1,746	+ 0.3	46,051	45,344	+ 1.6	26.30	25.97	+ 1.3
Structural iron work	9	3,522	3,561	— 1.1	92,831	99,494	— 6.7	26.36	27.94	— 5.7
Steam and hot water heat app.	19	4,719	5,018	— 6.0	130,360	135,417	— 3.7	27.62	26.99	+ 2.3
Stoves and furnaces	8	1,008	1,015	— 0.7	28,602	30,533	— 6.3	28.38	30.08	— 5.7
Foundries	39	7,304	7,480	— 2.4	197,185	198,470	— 0.6	27.00	26.53	+ 1.8
Machinery and parts	39	8,422	8,515	— 1.1	246,443	257,268	— 4.2	29.26	30.21	— 3.1
Electrical machinery and app.	16	5,095	5,600	— 9.0	117,249	145,287	—19.3	23.01	25.94	—11.3
Engines and pumps	10	3,252	3,309	— 1.7	75,982	90,525	—16.1	23.36	27.36	—14.6
Hardware and tools	20	6,494	6,572	— 1.2	144,500	150,676	— 4.1	22.25	22.93	— 3.0
Brass and bronze products	10	704	734	— 4.1	19,002	20,193	— 5.9	26.99	27.51	— 1.9
Jewelry and novelties	4	1,505	1,554	— 3.2	34,351	34,623	— 0.8	22.82	22.29	+ 2.4
Vehicles:	42	30,296	30,716	— 1.4	852,580	834,467	+ 2.2	28.14	27.17	+ 3.6
Automobiles	7	3,506	3,584	— 2.2	105,180	100,684	+ 4.5	30.00	28.09	+ 6.8
Automobile bodies and parts	12	5,936	5,847	+ 1.5	186,518	156,737	+19.0	31.42	26.81	+17.2
Locomotives and cars	13	14,902	15,227	— 2.1	400,119	415,275	— 3.6	26.85	27.27	— 1.5
Railroad repair shops	7	3,738	3,724	+ 0.4	99,113	98,445	+ 0.7	26.51	26.44	+ 0.2
Shipbuilding	3	2,214	2,334	— 5.1	61,650	63,326	— 2.6	27.85	27.13	+ 2.7
Textile products:	166	57,580	55,973	+ 2.9	1,317,546	1,291,146	+ 2.0	22.88	23.07	— 0.8
Cotton goods	14	3,909	4,119	— 5.1	98,529	95,720	+ 2.9	25.21	23.24	+ 8.5
Woolens and worsteds	16	7,194	7,079	+ 1.6	158,532	162,219	— 2.3	22.04	22.92	— 3.8
Silk goods	41	18,051	16,972	+ 6.4	358,517	329,074	+ 8.9	19.86	19.39	+ 2.4
Textile dyeing and finishing	10	1,959	1,871	+ 4.7	48,173	47,549	+ 1.3	24.59	25.41	— 3.2
Carpets and rugs	9	2,782	2,608	+ 6.7	72,228	69,934	+ 3.3	25.96	26.82	— 3.2
Hats and caps	5	3,843	3,848	— 0.1	106,607	103,646	+ 2.9	27.74	26.94	+ 3.0
Hosiery	27	11,925	11,592	+ 2.9	329,976	333,606	— 1.1	27.67	28.78	— 3.9
Knit goods, other	14	2,942	2,832	+ 3.9	55,739	54,031	+ 3.2	18.95	19.08	— 0.7
Men's clothing	11	1,864	2,082	—10.5	37,393	44,927	—16.8	20.06	21.58	— 7.0
Women's clothing	9	1,150	1,059	+ 8.6	17,520	15,733	+11.4	15.23	14.86	+ 2.5
Shirts and furnishings	10	1,961	1,911	+ 2.6	34,332	34,707	— 1.1	17.51	18.16	— 3.6

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

Group and Industry	No. of Plants Reporting	Number of wage earners—week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Nov. 15 1927	Oct. 15 1927	Per cent Change	Nov. 15 1927	Oct. 15 1927	Per cent Change	Nov. 15 1927	Oct. 15 1927	Per cent Change
Foods and tobacco:	104	23,550	24,078	— 2.2	$ 490,258	$ 498,976	— 1.7	$20.82	$20.72	+ 0.5
Bread and bakery products	29	4,484	4,520	— 0.8	130,452	131,376	— 0.7	29.09	29.07	+ 0.1
Confectionery	14	4,650	4,824	— 3.6	88,553	94,519	— 6.3	19.04	19.59	— 2.8
Ice cream	11	1,191	1,278	— 6.8	37,929	39,996	— 5.2	31.85	31.30	+ 1.8
Meat packing	14	2,136	2,109	+ 1.3	63,974	61,866	+ 3.4	29.95	29.33	+ 2.1
Cigars and tobacco	36	11,089	11,347	— 2.3	169,350	171,219	— 1.1	15.27	15.09	+ 1.2
Stone, clay and glass products:	67	19,369	19,912	— 2.7	531,468	559,999	— 5.1	27.44	28.12	— 2.4
Brick, tile and pottery	30	4,865	5,010	— 2.9	113,329	119,603	— 5.2	23.29	23.87	— 2.4
Cement	14	7,012	7,151	— 1.9	216,039	225,696	— 4.3	30.81	31.56	— 2.4
Glass	23	7,492	7,751	— 3.3	202,100	214,700	— 5.9	26.98	27.70	— 2.6
Lumber products:	43	5,048	5,378	— 6.1	107,497	120,027	—10.4	21.29	22.32	— 4.6
Lumber and planing mills	18	2,414	2,388	+ 1.1	52,120	52,312	— 0.4	21.59	21.91	— 1.5
Furniture	19	1,805	2,162	—16.5	42,349	52,960	—20.0	23.46	24.50	— 4.2
Wooden boxes	6	829	828	+ 0.1	13,028	14,755	—11.7	15.72	17.82	—11.8
Construction and contracting:	33	5,007	5,029	— 0.4	133,395	138,268	— 3.5	26.64	27.49	— 3.1
Buildings	19	1,623	1,654	— 1.9	47,935	53,345	—10.1	29.53	32.25	— 8.4
Street and highway	3	628	525	+19.6	11,577	9,689	+19.5	18.43	18.47	— 0.2
General	11	2,756	2,850	— 3.3	73,883	75,234	— 1.8	26.81	26.40	+ 1.6
Chemical products:	34	10,660	10,554	+ 1.0	312,284	311,619	+ 0.2	29.29	29.53	— 0.8
Chemicals and drugs	14	1,194	1,170	+ 2.1	32,836	32,311	+ 1.6	27.50	27.62	— 0.4
Coke	3	2,598	2,548	+ 2.0	76,431	75,069	+ 1.8	29.42	29.46	— 0.1
Explosives	3	541	530	+ 2.1	14,943	14,487	+ 3.1	27.62	27.33	+ 1.1
Paints and varnishes	9	1,106	1,111	— 0.5	30,215	30,330	— 0.4	27.32	27.30	+ 0.1
Petroleum refining	5	5,221	5,195	+ 0.5	157,859	159,422	— 1.0	30.24	30.69	— 1.5
Leather and rubber products:	51	11,812	11,547	+ 2.3	261,126	270,693	— 3.5	22.11	23.44	— 5.7
Leather tanning	17	5,983	5,888	+ 1.6	151,655	153,368	— 1.1	25.35	26.05	— 2.7
Shoes	23	4,189	4,248	— 1.4	72,003	79,866	— 9.8	17.19	18.80	— 8.6

Leather products, other	7	722	485	+48.9	14,432	10,551	+36.8	19.99	21.75	— 8.1
Rubber tires and goods	4	918	926	— 0.9	23,036	26,908	—14.4	25.09	29.06	—13.7
Paper and printing:	55	8,052	8,083	— 0.4	244,509	240,626	+ 1.6	30.37	29.77	+ 2.0
Paper and wood pulp	11	3,156	3,190	— 1.1	91,062	91,693	— 0.7	28.85	28.74	+ 0.4
Paper boxes and bags	6	822	798	+ 3.0	12,830	12,343	+ 3.9	15.61	15.47	+ 0.9
Printing and publishing	38	4,074	4,095	— 0.5	140,617	136,590	+ 2.9	34.52	33.36	+ 3.5

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Man-Hours Week Ended			Average Hourly Wages Week Ended		
		November 15 1927	October 15 1927	Per cent change	November 15 1927	October 15 1927	Per cent change
ALL INDUSTRIES (49)	490	6,682,608	6,720,828	— 0.6	$ .565	$ .569	— 0.7
Metal Products:	164	3,037,661	3,124,030	— 2.8	.604	.605	— 0.2
Blast furnaces	8	102,161	116,029	—12.0	.578	.579	— 0.2
Steel works and rolling mills	25	1,538,889	1,502,705	+ 2.4	.624	.631	— 1.1
Iron and steel forgings	8	60,673	58,658	+ 3.4	.559	.566	— 1.2
Structural iron work	5	50,418	61,262	—17.7	.574	.579	— 0.9
Steam and hot water heating app.	12	113,221	120,111	— 5.7	.646	.597	+ 8.2
Foundries	32	290,411	289,738	+ 0.2	.615	.614	+ 0.2
Machinery and parts	29	311,164	319,777	— 2.7	.610	.616	— 1.0
Electrical machinery and app.	12	176,984	225,425	—21.5	.537	.549	— 2.2
Engines and pumps	8	107,765	136,494	—21.0	.624	.611	+ 2.1
Hardware tools	14	195,875	201,574	— 2.8	.520	.522	— 0.4
Brass and bronze products	8	32,885	35,003	— 6.1	.542	.549	— 1.3
Jewelry and novelties	3	57,215	57,254	— 0.1	.496	.496	0
Vehicles:	33	908,054	874,060	+ 3.9	.627	.628	— 0.2
Automobiles	7	158,365	153,953	+ 2.9	.664	.654	+ 1.5
Automobiles bodies and parts	9	298,789	238,498	+25.3	.604	.630	— 4.1
Locomotives and cars	9	263,626	287,535	— 8.3	.611	.601	+ 1.7
Railroad repair shops	5	92,359	95,357	— 3.1	.662	.647	+ 2.3
Shipbuilding	3	94,915	98,717	— 3.9	.650	.641	+ 1.4
Textile Products,	70	1,013,503	919,130	+10.3	.434	.438	— 0.9
Cotton goods,	11	74,263	75,309	— 1.4	.470	.465	+ 1.1
Woolens and worsteds,	10	145,187	150,052	— 3.2	.469	.453	+ 3.5
Silk goods,	21	481,065	397,931	+20.9	.416	.422	— 1.4
Textile dyeing and finishing,	5	33,315	34,037	— 2.1	.495	.496	— 0.2
Carpets and rugs,	4	82,364	79,572	+ 3.5	.514	.528	— 2.7
Hosiery,	5	83,611	75,319	+11.0	.426	.434	— 1.8
Knit goods, other,	7	52,825	48,124	+ 9.8	.370	.389	— 4.9
Women's clothing,	4	29,507	27,199	+ 8.5	.391	.368	+ 6.3
Shirts and furnishings,	3	31,366	31,587	— 0.7	.365	.375	— 2.7

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Concluded)

GROUP AND INDUSTRY	Plants	Total Weekly Man-Hours Week Ended			Average Hourly Wages Week Ended		
		November 15 1927	October 15 1927	Per cent change	November 15 1927	October 15 1927	Per cent change
Foods and Tobacco:	43	277,786	290,860	— 4.5	$ .505	$ .492	+ 2.6
Bread and bakery products,	17	73,597	76,590	— 3.9	.519	.507	+ 2.4
Confectionery,	5	95,117	102,057	— 6.8	.435	.428	+ 1.6
Ice Cream,	7	39,807	43,302	— 8.1	.579	.551	+ 5.1
Meat packing,	8	58,558	57,996	+ 1.0	.555	.549	+ 1.1
Cigars and tobacco,	6	10,707	10,915	— 1.9	.474	.460	+ 3.0
Stone, Clay and Glass Products:	39	563,565	596,619	— 5.5	.557	.559	— 0.4
Brick, tile and pottery,	18	143,945	148,002	— 2.7	.539	.537	+ 0.4
Cement,	8	217,936	234,501	— 7.1	.515	.516	— 0.2
Glass,	13	201,684	214,116	— 5.8	.615	.621	— 1.0
Lumber Products:	34	135,267	157,276	—14.0	.482	.496	— 2.8
Lumber and planing mills,	14	48,015	48,197	— 0.4	.530	.539	— 1.7
Furniture,	15	58,384	75,244	—22.4	.505	.531	— 4.9
Wooden boxes,	5	28,868	33,835	—14.7	.355	.354	+ 0.3
Construction and Contracting:	28	187,814	188,429	— 0.3	.623	.634	— 1.7
Building,	16	56,589	61,005	— 7.2	.751	.776	— 3.2
Street and highway,	3	21,660	17,417	+24.4	.535	.556	— 3.8
General,	9	109,565	110,007	— 0.4	.574	.568	+ 1.0
Chemical Products:	16	94,418	93,949	+ 0.5	.521	.523	— 0.4
Chemicals and drugs,	10	46,219	45,128	+ 2.4	.493	.499	— 1.2
Paints and varnishes,	6	48,199	48,821	— 1.3	.547	.545	+ 0.4
Leather and Rubber Products:	29	254,209	263,571	— 3.6	.475	.489	— 2.9
Leather tanning,	9	110,907	109,183	+ 1.6	.537	.536	+ 0.2
Shoes,	12	93,651	98,377	— 4.8	.353	.391	— 9.7
Leather products, other,	4	9,610	9,698	— 0.9	.527	.526	+ 0.2
Rubber tires and goods,	4	40,041	46,313	—13.5	.575	.581	— 1.0
Paper and Printing:	34	210,331	212,904	— 1.2	.593	.593	0
Paper and wood pulp,	7	126,715	129,656	— 2.3	.555	.558	— 0.5
Paper boxes and bags,	3	10,834	10,643	+ 1.8	.356	.320	+11.3
Printing and publishing,	24	72,782	72,605	+ 0.2	.695	.696	— 0.1

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

City Area	No. of Plants Reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Nov. 15 1927	Oct. 15 1927	Per cent change	Nov. 15 1927	Oct. 15 1927	Per cent change	Nov. 15 1927	Oct. 15 1927	Per cent change
Allentown-Bethlehem-Easton	79	22,204	22,379	— 0.8	$ 572,665	$ 593,145	— 3.5	$ 25.79	$ 26.50	— 2.7
Altoona	15	2,307	2,341	— 1.5	51,059	53,773	— 5.0	22.13	22.97	— 3.7
Erie	14	4,072	4,155	— 2.0	123,196	126,396	— 2.5	30.25	30.42	— 0.6
Harrisburg	35	7,150	7,325	— 2.4	146,332	159,461	— 8.2	20.47	21.77	— 6.0
Hazleton-Pottsville	20	4,607	4,672	— 1.4	99,183	102,621	— 3.4	21.53	21.97	— 2.0
Johnstown	13	1,125	1,225	— 8.2	25,866	28,683	— 9.8	22.99	23.41	— 1.8
Lancaster	30	4,720	4,607	+ 2.5	102,426	100,615	+ 1.8	21.70	21.84	— 0.6
New Castle	9	5,735	5,808	— 1.3	148,280	160,765	— 7.8	25.86	27.68	— 6.6
Philadelphia	246	85,279	86,582	— 1.5	2,317,598	2,363,874	— 2.0	27.18	27.30	— 0.4
Pittsburgh	101	63,651	64,906	— 1.9	1,700,729	1,710,210	— 0.6	26.72	26.35	+ 1.4
Reading-Lebanon	65	21,282	21,037	+ 1.2	537,653	533,714	+ 0.7	25.26	25.37	— 0.4
Scranton	34	4,868	4,832	+ 0.7	93,520	94,845	— 1.4	19.21	19.63	— 2.1
Sunbury	26	10,102	9,177	+10.1	216,054	196,685	+ 9.8	21.39	21.43	— 0.2
Wilkes-Barre	21	6,892	6,748	+ 2.1	141,840	141,663	+ 0.1	20.58	20.99	— 2.0
Williamsport	23	5,209	5,253	— 0.8	129,291	127,070	+ 1.7	24.82	24.19	+ 2.6
York	44	6,320	6,389	— 1.1	126,131	118,782	+ 6.2	19.96	18.59	+ 7.4

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

ACCIDENT REPORTS RECEIVED

1927	Fatal	Permanent Disability	Temporary Disability	Total
July	176	88	12,460	12,724
August	172	148	13,512	13,832
September	163	136	13,143	13,442
October	163	132	13,432	13,727
November	196	167	12,920	13,283
December				
Total—1927	1,915	1,527	145,544	148,986
1926				
July	190	174	15,412	15,778
August	183	158	16,355	16,697
September	231	181	15,685	16,097
October	166	167	16,222	16,555
November	181	160	14,689	15,030
December	203	151	14,548	14,902
Total—1926	2,116	1,904	176,380	180,400
*Grand Total	28,717	11,126	2,126,211	2,166,054

AGREEMENTS APPROVED

1927	Fatal	Permanent Disability	Temporary Disability	Total
July	198	315	5,780	6,293
August	170	273	5,429	5,872
September	152	311	5,503	5,966
October	227	293	5,379	5,899
November	148	207	5,299	5,654
December				
Total—1927	1,846	3,137	63,288	68,271
1926				
July	124	281	5,768	6,173
August	176	281	6,535	6,992
September	179	290	5,012	5,481
October	153	267	6,736	7,156
November	221	316	6,049	6,586
December	137	326	5,455	5,918
Total—1926	1,830	3,563	69,942	75,335
*Grand Total	23,601	23,617	789,249	836,467

*Since the inception of the Act, January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1927	Awarded: Total Compensation Awarded	Awarded: Fatal Compensation Awarded	Awarded: Permanent Disability Compensation Awarded	Awarded: Temporary Disability Compensation Awarded
July	$ 1,389,540	$ 604,010	$ 294,561	$ 490,969
August	1,140,955	484,986	271,678	384,291
September	1,058,988	426,309	287,559	345,120
October	1,120,444	514,366	288,293	367,845
November	1,004,456	510,697	184,903	308,856
December				
Total—1927	$ 12,127,785	$ 5,339,999	$ 2,898,665	$ 3,889,121
1926				
July	$ 949,519	$ 330,807	$ 244,261	$ 374,451
August	1,174,190	538,537	260,857	374,796
September	1,225,075	622,938	287,105	315,032
October	987,188	457,284	191,136	338,768
November	1,238,613	599,747	300,440	338,426
December	1,084,444	420,704	328,805	334,935
Total—1926	$ 12,979,641	$ 5,278,927	$ 3,384,399	$ 4,316,315
*Grand Total	$133,783,240	$ 64,993,781	$ 27,553,531	$ 41,235,925

1927	Paid: Total Compensation Paid	Paid: Fatal Compensation Paid	Paid: Permanent Disability Compensation Paid	Paid: Temporary Disability Compensation Paid
July	$ 1,204,087	$ 307,034	$ 406,084	$ 490,969
August	1,081,893	256,510	441,092	384,291
September	902,607	278,397	279,090	345,120
October	1,017,146	325,006	324,295	367,845
November	824,175	246,964	268,355	308,856
December				
Total—1927	$ 10,714,416	$ 3,216,678	$ 3,608,617	$ 3,889,121
1926				
July	$ 939,189	$ 298,707	$ 266,031	$ 374,451
August	863,901	238,184	250,921	374,796
September	857,469	308,133	234,804	315,032
October	877,597	278,827	260,002	338,768
November	814,109	229,529	246,154	388,426
December	933,508	305,998	292,575	334,935
Total—1926	$ 11,037,688	$ 3,529,120	$ 3,192,253	$ 4,316,315
*Grand Total	$ 92,567,973	$ 28,436,206	$ 22,895,842	$ 41,235,925

*Since the inception of the Act—January 1, 1916.

** PERMANENT INJURIES

1927	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July,	8	$20,056	6	$14,731	26	$51,976	20	$35,814	46	$65,013
August,	13	31,089	6	13,768	22	43,184	13	20,310	51	75,731
September,	14	33,780	4	10,169	13	26,602	12	22,607	62	93,165
October,	10	25,800	5	11,610	17	36,456	13	23,264	43	61,951
November,	11	27,211	1	2,572	14	28,563	6	10,742	31	47,654
December,										
Total—1927,	117	$291,400	61	$151,403	197	$395,446	142	$250,912	519	$774,577
1926										
July,	7	$17,254	5	$12,056	19	$36,782	11	$18,249	41	$60,409
August,	9	20,055	8	17,639	24	47,577	12	20,953	43	68,092
September,	14	35,912	6	14,793	20	43,391	11	19,768	48	75,043
October,	4	10,062	5	12,814	10	19,827	9	16,184	40	56,724
November,	7	17,912	7	17,569	19	39,621	24	42,456	63	94,021
December,	13	33,555	5	11,402	21	42,890	18	33,616	62	93,600
Total—1926,	124	$311,378	83	$207,090	229	$458,088	192	$344,481	575	$870,732
*Grand Total,	1,319	$2,717,197	892	$1,976,486	2,830	$5,128,984	1,700	$2,795,953	6,979	$9,656,568

**PERMANENT INJURIES—(Concluded)

1927	Loss of Fingers		Loss of Phalanges		Miscellaneous		Total	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	Amount Awarded	Amount Paid
July,	118	$40,259	104	$19,791	31	$46,921	$294,561	$406,084
August,	112	36,970	83	15,624	21	35,002	271,678	441,092
September,	125	45,165	115	21,164	22	34,907	287,559	279,000
October,	124	44,892	102	20,028	10	15,192	238,293	324,595
November,	105	35,481	69	12,444	9	20,236	184,903	268,355
December,								
Total—1927,	1,337	$452,252	1,081	$202,262	187	$380,413	$2,898,665	$3,608,617
1926								
July,	120	$42,104	114	$22,577	16	$34,830	$244,261	$266,031
August,	117	40,610	109	19,887	10	25,444	260,857	250,921
September,	127	40,877	107	20,709	19	36,612	287,105	234,304
October,	123	41,638	112	19,679	11	13,908	191,136	260,002
November,	133	46,749	116	22,775	12	19,337	300,440	246,154
December,	101	35,005	123	22,867	20	55,870	328,805	292,575
Total—1926,	1,553	$537,332	1,286	$241,319	188	$413,979	$3,384,399	$3,192,253
*Grand Total,	6,598	$2,252,281	5,545	$1,036,582	779	$1,989,483	$27,553,534	$22,895,842

*Since the inception of the Act—January 1, 1916.
**Multiple losses separated respectively.
NOTE: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING NOVEMBER, 1927

Cause			Construction and Contracting						Coal Mining						Manufacturing																	
	Total of all Industries		Building Construction		Other Construction		Contracting		Anthracite		Bituminous		Mining, Other Than Coal Mining, and Quarrying		Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all Causes	196	13,087	12	974	5	447	5	303	37	2,257	33	1,973	6	191	36	4,231	1	195	9	348	--	164	1	381	--	125	--	328	3	220	--	244
Working Machinery	---	1,010	--	30	--	25	--	13	--	28	--	106	--	3	--	721	--	8	--	23	--	65	--	33	--	19	--	103	--	55	--	69
Boilers and Pressure Apparatus	2	4	--	-----	--	-----	--	-----	--	1	--	-----	--	-----	2	3	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Pumps and Prime Movers	1	31	--	4	--	2	--	5	--	1	--	3	--	1	1	9	1	4	--	-----	--	-----	--	-----	--	-----	--	2	--	-----	--	-----
Transmission Apparatus	2	32	--	2	--	1	--	1	1	6	--	6	--	-----	1	14	--	-----	--	2	--	1	--	1	--	-----	--	2	1	1	--	2
Elevators and Hoists	7	70	2	8	--	1	--	-----	1	7	--	5	--	3	3	24	--	2	--	1	--	1	--	5	--	2	--	1	--	-----	--	4
Cranes and Derricks	5	168	1	14	--	10	--	15	--	5	--	6	1	8	2	102	--	3	--	1	--	-----	--	2	--	-----	--	1	--	2	--	-----
Cars and Engines	37	1,318	--	9	1	13	--	3	8	423	8	530	1	31	5	84	--	4	--	16	--	-----	--	2	--	1	--	4	1	3	--	-----
Motor Vehicles	13	690	--	42	1	43	1	27	--	4	--	7	--	11	1	198	--	11	--	7	--	4	--	47	--	3	--	4	--	13	--	3
Other Vehicles	3	111	--	1	--	2	--	3	--	-----	--	1	--	5	--	44	--	-----	--	-----	--	-----	--	28	--	-----	--	15	--	-----	--	-----
Hand Trucks	1	181	--	10	--	8	--	8	--	3	--	-----	--	-----	1	110	--	7	--	16	--	3	--	7	--	4	--	5	--	6	--	5
Water and Air Craft	2	5	--	-----	1	2	1	-----	--	-----	--	-----	--	-----	--	1	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Handling Objects—By Hand	1	2,706	--	239	--	108	--	63	--	400	--	214	--	36	1	1,053	--	49	--	120	--	24	--	95	--	34	--	62	--	37	--	56
Hand Tools	3	1,198	1	87	--	39	--	33	--	235	--	224	--	26	2	338	--	14	--	18	--	18	1	21	--	13	--	42	--	9	--	11
Electricity	6	76	--	3	--	2	--	-----	1	9	1	25	1	2	2	21	--	1	1	3	--	1	--	-----	--	-----	--	-----	--	-----	--	-----
Explosive Substances	32	295	--	3	--	12	--	5	4	42	--	31	--	1	8	132	--	12	8	31	--	2	--	5	--	1	--	-----	--	29	--	-----
Hot and Corrosive Substances	1	366	--	36	--	14	--	9	--	16	--	9	--	3	1	197	--	17	--	7	--	2	--	17	--	7	--	1	--	7	--	13
Falling Objects	53	1,743	--	93	1	38	2	35	20	588	24	557	2	39	2	285	--	10	--	32	--	-----	--	12	--	5	--	29	--	11	--	18
Falls of Persons	20	1,686	6	237	1	65	1	45	1	234	--	98	1	19	4	492	--	30	--	40	--	23	--	65	--	17	--	34	1	30	--	39
Stepping Upon or Striking Against Objects	1	853	--	136	--	40	--	22	--	157	--	84	--	-----	--	247	--	9	--	25	_	13	--	27	--	12	--	13	--	14	--	19
Miscellaneous	6	544	2	20	--	22	--	16	1	98	--	67	--	3	--	156	--	13	--	6	--	7	--	14	--	7	--	10	--	3	--	5

* F=Fatal. N F=Non-Fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING NOVEMBER, 1927—(Concluded)

Cause	Manufacturing—Concluded																																															
																							Transportation and Public Utilities								Other Industries																	
	Metals and Metal Products																																Trading															
	Total			Blast Furnaces and Steel Works			Rolling Mills			Foundries and Machine Shops			Fabrication			Car Repair Shops			Automobile Service Stations			Other			Steam Railroads			Other Transportation			Public Utilities			Hotels and Restaurants			Retail			Wholesale			State and Municipal			Miscellaneous		
*	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F
Total of all Causes	22	2,155	6	90	5	345	1	424	5	871	2	256	3	109	--	71	15	565	2	146	20	211	--	126	6	654	1	156	9	266	9	587
Working Machinery	--	320	--	8	--	30	--	70	--	176	--	32	--	4	--	26	--	2	--	--	--	4	--	11	--	27	--	3	--	5	--	32
Boilers and Pressure Apparatus	2	3	1	--	1	--	--	--	--	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pumps and Prime Movers	--	3	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	2	--	--	--	2	--	1
Transmission Apparatus	--	5	--	1	--	--	--	3	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Elevators and Hoists	3	8	--	--	--	1	--	1	3	5	--	--	--	1	--	--	--	--	--	--	--	--	--	4	--	7	--	6	--	--	1	5
Cranes and Derricks	2	93	--	9	--	18	1	21	1	34	--	9	--	2	--	--	--	1	--	--	--	3	--	--	1	3	--	--	--	1	--	--
Cars and Engines	4	53	1	6	2	7	--	2	--	12	1	26	--	--	--	1	13	190	1	14	--	3	--	--	--	10	--	7	--	--	--	1
Motor Vehicles	1	104	--	1	--	6	--	5	--	14	--	2	1	76	--	2	1	12	1	39	--	21	--	3	1	100	1	29	2	58	4	96
Other Vehicles	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	10	--	--	--	18	--	1	2	6	1	19
Hand Trucks	1	53	--	--	--	16	--	7	1	26	--	4	--	--	--	4	--	25	--	4	--	2	--	--	--	1	--	5	--	--	--	5
Water and Air Craft	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Handling Objects—By Hand	1	556	--	17	--	100	--	126	--	247	--	44	1	22	--	20	--	114	--	29	--	49	--	31	--	165	--	52	--	52	--	101
Hand Tools	1	191	--	12	--	30	--	21	--	68	1	39	--	21	--	1	--	53	--	13	--	21	--	16	--	50	--	6	--	22	--	35
Electricity	1	16	1	--	--	5	--	1	--	8	--	2	--	--	--	--	--	1	--	4	1	7	--	--	--	1	--	--	--	--	--	1
Explosive Substances	--	50	--	1	--	12	--	12	--	19	--	1	--	5	--	2	--	--	--	2	16	14	--	4	2	29	--	--	1	6	1	14
Hot and Corrosive Substances	1	126	1	9	--	14	--	40	--	36	--	12	--	6	--	--	--	12	--	3	--	3	--	14	--	12	--	2	--	9	--	27
Falling Objects	2	168	1	5	1	39	--	33	--	69	--	20	--	2	--	--	--	19	--	3	1	16	--	2	1	28	--	3	--	14	--	23
Falls of Persons	3	206	1	15	1	29	--	30	--	73	--	47	1	12	--	8	1	83	--	13	2	38	--	28	--	129	--	24	3	50	--	131
Stepping Upon or Striking Against Objects	--	110	--	2	--	18	--	25	--	46	--	11	--	8	--	5	--	24	--	12	--	15	--	10	--	51	--	13	--	10	1	32
Miscellaneous	--	89	--	4	--	20	--	18	--	31	--	6	--	10	--	2	--	27	--	8	--	5	--	3	1	21	--	5	1	31	1	62

* F=Fatal. N F=Non-Fatal

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1923			1924			1925			1926			1927		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	223	16,710	16,933	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667
February	221	15,276	15,497	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285
	444	*31,986*	*32,430*	*414*	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*
March	222	15,653	15,875	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	163	14,332	14,495
	666	*47,639*	*48,305*	*626*	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*
April	196	16,689	16,885	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862
	862	*64,328*	*65,190*	*777*	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*
May	226	17,384	17,610	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042
	1,088	*81,712*	*82,800*	*934*	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*
June	188	17,433	17,621	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627
	1,276	*99,145*	*100,421*	*1,109*	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*
July	221	17,749	17,970	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724
	1,497	*116,894*	*118,391*	*1,294*	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*
August	216	18,452	18,668	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832
	1,713	*135,346*	*137,059*	*1,481*	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*
September	173	15,504	15,677	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442
	1,886	*150,850*	*152,736*	*1,648*	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,556*	*120,420*	*121,976*
October	207	17,380	17,587	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727
	2,093	*168,230*	*170,323*	*1,828*	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*
November	163	15,532	15,695	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	196	13,087	13,283
	2,256	*183,762*	*186,018*	*2,022*	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,915*	*147,071*	*148,986*
December	156	14,261	14,417	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902			
Totals	*2,412*	*198,023*	*200,435*	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

MAIN OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
Bureau of Employment
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
State Workmen's Insurance Fund,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
311 Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
412 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
309 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
Hazleton National Bank Building.

Johnstown: .....State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.
Bureau of Inspection,
427 Swank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
State Employment Office for Women,
Bureau of Women and Children,
1924-26 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
108 North Fifth Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
Witmer Building.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.

Note—State Employment offices are conducted in cooperation with the United States Employment Service.

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BUREAU OF WORKMEN'S COMPENSATION REPORT FOR YEAR 1927

By William H. Horner, *Director*

During the year ending December 31, 1927, the Bureau of Workmen's Compensation received 160,754 accident reports involving a time loss of two days or more. These figures include 2,064 fatal cases. As compared with the 1926 totals there was a decrease of about 10.9 per cent in the number of accidents reported during the year 1927. The largest number of fatalities due to one accident was twenty-six. These deaths were the result of the disastrous gas explosion in Pittsburgh on November 14, 1927.

The following tables give a comparison of the number of fatal and non-fatal accidents reported during the years 1926 and 1927 by industrial classification:

1927

Industrial Groups	Fatal	Non-Fatal	Total
Construction and contracting,	235	19,031	19,266
Manufacturing,	400	56,363	56,763
Coal Mining:			
Anthracite,	502	26,817	27,319
Bituminous,	389	23,267	23,656
Quarrying and mining other than coal mining,	45	2,402	2,447
Transportation and public utilities,	273	12,412	12,685
Trading:			
Retail,	49	6,287	6,336
Wholesale,	11	1,475	1,486
State and municipal,	92	3,383	3,475
Miscellaneous,	68	7,253	7,321
Total,	2,064	158,690	160,754

1926

Industrial Groups	Fatal	Non-Fatal	Total
Construction and contracting,	217	20,489	20,706
Manufacturing,	469	70,139	70,608
Coal Mining:			
Anthracite,	484	27,633	28,117
Bituminous,	443	24,234	24,677
Quarrying and mining other than coal mining,	41	2,685	2,726
Transportation and public utilities,	273	14,079	14,352
Trading:			
Retail,	51	5,743	5,794
Wholesale,	15	1,687	1,702
State and municipal,	70	3,454	3,524
Miscellaneous,	53	8,141	8,194
Total,	2,116	178,284	180,400

The accident figures for 1927 are the lowest since 1922 with the exception that in 1925 there were 2,009 fatal accidents as compared with 2,064 for 1927. In order to show the accident trend year by year, the number of fatal and non-fatal accidents reported to the Bureau each year since January 1, 1916, is given in the following table:

Year	Fatal	Non-Fatal	Total
1916,	2,670	252,946	255,616
1917,	3,072	224,808	227,880
1918,	3,403	181,441	184,844
1919,	2,569	149,975	152,544
1920,	2,528	172,451	174,979
1921,	1,924	138,273	140,197
1922,	1,890	144,365	146,255
1923,	2,412	198,023	200,435
1924,	2,209	175,330	177,539
1925,	2,009	174,370	176,379
1926,	2,116	178,284	180,400
1927,	2,064	158,690	160,754
Total,	28,866	2,148,956	2,177,822

For the purpose of promoting the prompt reporting of accidents and to speed up the prompt submission of agreements for the payment of compensation to injured workers or their dependents a study was begun in January, 1927 to determine the actual time elapsing between the dates accidents occurred and the dates the reports of such accidents were received by the Bureau, as well as the period elapsing between the dates of accidents and the dates agreements for the payment of compensation on account of such accidents were received by the Bureau.

This study which extended over a period of more than nine months, only covered non-fatal accidents reported and uncontested compensation cases, that is, cases where compensation was paid upon agreements submitted to the Bureau and not cases where awards were made by the Referees or the Workmen's Compensation Board. This study shows that the average time required by self-insurers and insurance companies in the State of Pennsylvania for reporting accidents was eighteen days and the average time for these same companies for submitting agreements for the payment of compensation to the Bureau was forty-eight days.

In view of the fact that the amendments to the Workmen's Compensation Law reduce the waiting period for the beginning of compensation payments from ten to seven days, covering all accidents occurring on or after January 1, 1928, it is of the utmost importance that the time required for reporting accidents and submitting agreements for the payment of compensation to the Bureau be very materially reduced. This is very essential in order to insure the payment of compensation with the least possible delay.

COMPENSABLE CASES

Compensation payments were authorized during the year in 74,886 cases, either upon the approval of agreements excuted by the parties in interest or upon awards made by the Referees or the Workmen's Compensation Board. The total amount of compensation liability in these 74,886 cases was $13,343,489 subdivided as follows:

Fatal cases:	$5,772,868
Permanent Disability cases:	3,226,464
Temporary Disability cases:	4,344,157

From January 1, 1916 to January 1, 1928 there were 843,082 cases, in which the compensation liability incurred by employers or their authorized insurance carriers throughout the State amounted to $134,998,944. This compensation liability is distributed as follows:

Fatal cases:	$65,426,650
Permanent Disability cases:	27,881,333
Temporary Disability cases:	41,690,961

The above figures do not include the amount which was paid for medical, surgical and hospital services, medicines and supplies as required by law, which probably amounted to one-third of the compensation liability.

At the close of the year 1927 the records in the Bureau show an outstanding liability in fatal and permanent disability cases amounting to $41,447,508. Under the provisions of the Law these unpaid obligations are to be made in weekly installments extending over a number of years.

During the year a careful study was made of many of the old cases in the open files of the Bureau with the result that final adjustments have been made in many of these cases and the files closed.

It is estimated that the amendments to the Workmen's Compensation Law, which reduce the waiting period when compensation payments begin from ten to seven days, will increase the compensable cases approximately twenty per cent. This will greatly increase the work of the Bureau for the ensuing year.

At the close of the year there were between twenty-five and thirty thousand compensable cases in the open files of the Bureau in which compensation payments were being made. The majority of these cases are fatal cases with temporary disability and permanent disability cases following in the order named.

FATAL COMPENSABLE CASES

Compensation payments in 2,001 fatal cases, either by agreements or awards, were authorized during the year.

There were 335 fatal cases where the Bureau was notified during the year of the remarriage of widows. Because of these remarriages lump sum payments were made to the widows and compensation payments to the minor dependents were suspended for the period covered by the lump sum payment. Before payments on behalf of the minor dependents can be resumed, it is necessary to have guardians appointed for the minor dependents or have the Workmen's Compensation Board appoint some suitable person to receive compensation payments on behalf of these minors. This requires considerable follow-up work in order that payments may be resumed at the proper time and the dependents receive the full benefits of the Compensation Law.

In 645 cases there were no minor dependents. The sole beneficiaries in 410 of these cases were widows; in 19 cases, fathers; in 99 cases, mothers; and in 117 cases, fathers and mothers.

It might also be interesting to know that since the Workmen's Compensation Law became effective on January 1, 1916, the beneficiaries in fatal cases were made up as follows: 14,106 widows; 32,307 children under sixteen years of age, 16,311 boys, 15,931 girls; 34 brothers; 31 sisters; 1,664 fathers and 2,466 mothers.

The total compensation liability in fatal cases under agreements or awards, as well as the amount paid towards defraying funeral expenses in cases where there were no dependents entitled to the payment of compensation, is shown in the following tables:

Table of Fatal Dependency Cases

Year	Agreements and Awards	Compensation Incurred	Average Compensation per Case
1916,	1,304	$4,078,796	$3,127.91
1917,	1,323	4,127,931	3,113.07
1918,	2,041	6,806,490	3,334.88
1919,	1,794	6.361,191	3,545.81
1920,	1,643	5,854,535	3,564.05
1921,	1,338	4,658,392	3,481.61
1922,	1,444	5,050,395	3,497.50
1923,	1,683	5,872,039	3,489.03
1924,	1,736	5,808,573	3,345.95
1925,	1,593	5,360,392	3,364.91
1926,	1,574	5,253,327	3,337.56
1927,	1,672	5,739,968	3,433.00
Total,	19,145	$64,972,029	$3,393.68

No Dependency Cases—Funeral Expenses Paid

Year	Cases	Total Paid	Average per Case
1916,	423	$37,279	$88.13
1917,	623	61,397	98.55
1918,	566	56,190	99.28
1919,	702	69,964	99.66
1920,	512	51,287	100.17
1921,	233	23,300	100.00
1922,	121	12,095	99.96
1923,	269	26,900	100.00
1924,	209	20,909	100.00
1925,	368	36,800	100.00
1926,	256	25,600	100.00
1927,	329	32,900	100.00
Total,	4,611	$454,621	$98.59

FACIAL DISFIGUREMENT

Under the amendments to the Workmen's Compensation Law effective May 20, 1921 serious and permanent disfigurement of the head or face became compensable. The following table shows the number of these cases for each year, as well as the amount of compensation incurred:

Year	Agreements and Awards	Compensation Incurred	Average Compensation per Case
1922,	7	$ 8,331	$1,190.00
1923,	21	15,247	726.00
1924,	31	35,386	1,141.00
1925,	85	45,933	540.00
1926,	100	62,872	629.00
1927,	120	51,059	425.00
Total,	364	$218,828	$ 601.00

SUMMARY OF ALL PERMANENT INJURY CASES

The number of permanent injury cases in which compensation is payable under the Law for a specified number of weeks, as well as the total compensation liability incurred, is shown in the following table:

Year	Agreements and Awards	Compensation Incurred	Average Compensation per Case
1916,	646	$ 765,519	$ 1,185.00
1917,	681	875,252	1,285.00
1918,	1,301	1,920,264	1,476.00
1919,	1,286	1,925,600	1,497.00
1920,	1,328	2,281,837	1,718.00
1921,	1,333	2,463,823	1,848.00
1922,	1,173	2,226,364	1,898.00
1923,	2,503	2,873,481	1,148.00
1924,	3,300	3,052,162	925.00
1925,	3,370	2,836,168	856.00
1926,	3,563	3,384,399	950.00
1927,	3,479	3,226,464	927.00
Total,	23,963	$27,881,333	$1,164.00

TEMPORARY DISABILITY CASES

This classification includes all compensable cases where the duration of payments was not definite. Compensation payments continued in these cases until disability ended or payments were terminated by a final receipt or an order for termination by a referee or the Workmen's Compensation Board. The number of cases, total amount of compensation awarded, and average per case is shown in the following table:

Year	Agreements and Awards	Compensation Incurred	Average Compensation per Case
1916,	68,920	$2,652,136	$ 38.00
1917,	47,441	1,390,632	29.00
1918,	66,012	2,856,971	43.00
1919,	53,323	2,626,081	49.00
1920,	68,566	3,359,125	49.00
1921,	62,949	3,615,161	57.00
1922,	60,055	3,564,490	59.00
1923,	80,292	4,370,973	55.00
1924,	73,529	4,144,686	56.00
1925,	74,928	4,450,234	59.00
1926,	69,942	4,316,315	62.00
1927,	69,406	4,344,157	63.00
Total,	795,363	$41,690,961	$ 52.00

TOTAL COMPENSATION AWARDED—ALL CASES

As the heading implies, this classification is the summary of all cases wherein compensation was paid or awarded. The table following shows the total number of cases for each year; the compensation awarded including the amount paid for funeral expenses in fatal cases where there were no dependents entitled to compensation, as well as the average compensation for each case:

Year	Number of Cases	Compensation Awarded	Average Compensation per Case
1916,	70,870	$ 7,496,451	$106.00
1917,	49,445	6,393,815	139.00
1918,	69,354	11,583,725	167.00
1919,	56,403	10,912,872	193.00
1920,	71,537	11,495,497	161.00
1921,	65,620	10,737,376	164.00
1922,	62,672	10,841,249	173.00
1923,	84,478	13,116,493	155.00
1924,	78,565	13,005,421	166.00
1925,	79,891	12,696,794	159.00
1926,	75,079	12,954,041	173.00
1927,	74,557	13,310,589	179.00
Total,	838,471	$134,544,323	$ 160.00
Fatal – No dependents Funeral expenses paid 1916-1927,	4,611	454,621	99.00
Grand Total,	843,082	$134,998,944	$160.00

ADJUSTMENT SECTION

The following summary compiled by the Harrisburg office, will give an idea of the work performed by this Section during the past year:

Compensation agreements secured and approved 1,237

Non-compensable cases adjusted—time lost less than ten days and only medical expenses involved payments made.... 626

Interstate commerce cases investigated—railroad fatal accidents, settlement made under the Federal Liability Act, cases not covered by the Act 221

No dependents—fatal cases investigated and closed, where there was no dependency within the meaning of the Act, only part payment of last sickness and burial expenses involved to the amount of one hundred dollars, each, payments made 281

Petitions filed in order to determine merits of cases before referees in disputed claims 1,028

Commutation petitions investigated for the Board 214

Petitions investigated for the Board in which fatal accidents occurred after January 1, 1920 as to the petitioner being the proper person to receipt, collect, and disburse compensation payable to dependent minors on account of remarriage or death 331

Subrogation cases investigated—accidents where the third party was responsible and amounts received by claimants were equivalent to or in excess of amounts of compensation payable under the Act 31

Barred by Statute of Limitations—cases investigated where injured parties refused to sign compensation agreements, owing to small amount of compensation involved, claims now barred by Statute of Limitations ..	53
Other investigations made in miscellaneous cases	411
Cases on hand January 1, 1927	212
Cases assigned during year 1927	4,448
Total number of cases investigated and adjusted in 1927	4,433
Cases on hand January 1, 1928	227

STATE COMPENSATION CASES

The Department of Labor and Industry is responsible for the payment of compensation, as well as for the payment of bills for medical, surgical and hospital expenses, medicines and supplies, to injured State employes within the limitations of the Workmen's Compensation Law. These payments are made out of a fund appropriated to the Department by the Legislature for this purpose.

Practically all cases are investigated before compensation payments are authorized. These payments are made by check issued by the State Treasurer upon requisition made on the Auditor General by the Secretary of Labor and Industry.

The number of accidents to State employes reported to the Bureau of Workmen's Compensation during the year 1927 was 836 including 17 fatal cases, and 819 non-fatal cases. The non-fatal cases include accidents where the disability was less than two days but required medical treatment.

The following statement shows the total amount expended for this purpose from December 10, 1926, up to and including December 13, 1927:

	Accidents occurring prior to Jan. 1, 1927	Accidents occurring during 1927	Total amount paid in 1927
Medical, surgical, hospital and burial expenses:	$4,451.48	$11,075.45	$15,526.93
Costs (cases before referees),	12.20	20.46	32.66
Compensation paid (fatal cases),	17,225.25	1,994.57	19,219.82
Compensation paid (loss of members),	12,542.94	873.86	13,416.80
Compensation paid (temporary disability cases),	9,456.57	8,044.93	17,501.50
Total expenditures (1927),	$43,688.44	$22,009.27	$65,697.71
Total expenditures (1926),	28,012.50	36,424.50	64,437.00
Total expenditures (1925),	35,278.98	30,409.51	65,688.49
Total expenditures (1924),	35,024.73	39,285.65	74,310.38

INSURANCE COVERAGE SECTION

This Section is charged with the responsibility of passing upon the applications of employers for the privilege of operating as self-insurers. The importance of this work cannot be too strongly emphasized because it involves the extending of credit to these employers to the extent of approximately six million dollars annually.

Pennsylvania's experience with the self insurance group has been very satisfactory as is proven by the fact that since 1916 there has been only one case where an employer, operating as a self insurer, has defaulted in compensation payments. In this case the Bureau was successful in having individuals, interested in the defunct company, deposit sufficient funds with a trust company to guarantee the payment of at least two-thirds of the outstanding obligations as compensation payments.

During the year approximately 465 employers were granted the privilege of operating as self insurers. About sixty per cent of the compensation which is paid in the State of Pennsylvania comes from the self insurance group.

The Insurance Coverage Section is also responsible for the enforcement of the compulsory insurance provision of the Workmen's Compensation Law and as a result of its efforts approximately 2,500 employers of a few people have been required to secure compensation insurance during the year.

The provision of the Workmen's Compensation Law which requires every employer liable under the Act to secure compensation insurance is rather difficult to enforce. This section should be amended by the Legislature to provide that any employer failing to comply with the Law and upon conviction thereof in a summary proceeding before a magistrate, alderman or justice of the peace to be sentenced to pay a fine which would do away with the present technical feature of this provision and make the Law more easy to enforce.

For the purpose of determining whether or not employers are complying with the insurance provision of the Compensation Law, the Pennsylvania Compensation Rating and Inspection Bureau with offices in Philadelphia, furnishes the Bureau with a coverage card for each employer who secures compensation insurance. This card in addition to giving the name, address and business of the employer also gives the name of the insurance company and the date the policy expires.

PETITIONS FILED IN CONTESTED CASES

The number of claim and other petitions filed in contested cases and assigned to the Referees during the year was the largest since the Workmen's Compensation Law went into effect in 1916.

The number of claim petitions filed each year and assigned to the Referees, as well as the disposition made of these cases and the number of cases pending is shown in the following table:

Year	Assigned	Awards	Disallowed	Dismissed	Withdrawn	Pending
1916,	1,710	573	284	738	65	50
1917,	2,964	799	650	993	228	344
1918,	2,216	741	492	657	141	529
1919,	2,204	767	505	578	181	702
1920,	2,306	769	428	688	180	943
1921,	2,408	799	435	801	157	1,159
1922,	2,388	886	539	809	157	1,156
1923,	2,541	1,005	618	743	167	1,164
1924,	2,887	1,166	857	784	224	1,010
1925,	3,022	1,226	827	769	242	968
1926,	2,994	1,272	978	714	239	759
1927,	3,411	1,229	1,072	733	253	883
Total,	31,051	11,232	7,685	9,007	2,244	----------

The number of petitions for Modification, Review, Reinstatement, and Termination of compensation agreements assigned to the Referees each year, and the disposition of these cases, is shown in the table following:

Year	Assigned	Granted	Refused	Pending
1916 and 1917,	370	129	193	48
1918,	1,193	614	494	133
1919,	1,446	779	645	155
1920,	1,398	778	569	206
1921,	2,030	1,003	815	418
1922,	2,077	1,154	894	447
1923,	1,772	1,023	741	455
1924,	2,400	1,359	930	566
1925,	2,558	1,479	1,091	554
1926,	2,524	1,415	1,197	466
1927,	2,823	1,457	1,220	612
Total,	20,591	11,190	8,789	----------

In addition to the foregoing there were 90 cases returned to the Referees for rehearing or for further testimony; 8 cases assigned to Referees upon request of commissioners of other states to take depositions or testimony; 391 petitions for commutation assigned for the taking of testimony for the Board.

APPEALS

There were 918 appeals to the Board from decisions of referees, of which number 478 were taken by claimants and 440 by defendants; 206 appeals were taken to the courts from decisions of the Board.

Petitions assigned to referees, appeals to the Board and appeals to the courts during the year 1927 exceed the number in any previous year as will be noted from the following table:

SUMMARY OF CASES ASSIGNED TO REFEREES AND APPEALS TO THE BOARD AND COURTS

Year	Claim Petitions	*Other Petitions	Total	Appeals to Board	Appeals to Court
1916,	1,710		1,710	225	29
1917,	2,964	370	3,334	543	158
1918,	2,216	1,193	3,409	394	126
1919,	2,204	1,446	3,650	409	94
1920,	2,306	1,398	3,704	388	109
1921,	2,408	2,030	4,438	485	126
1922,	2,388	2,077	4,465	624	134
1923,	2,541	1,772	4,313	646	107
1924,	2,887	2,400	5,287	662	127
1925,	3,022	2,558	5,580	694	176
1926,	2,994	2,524	5,518	731	153
1927,	3,411	2,823	6,234	918	206
Total,	31,051	20,591	51,642	6,719	1,555

*Petitions for modification, termination, review, reinstatement and physical examination of employe.

Orders and opinions were filed by the Board during the year in cases appealed from decisions of referees as follows:

Referee affirmed	670
Referee reversed	67
Hearing de novo ordered	21
Rehearing ordered	90
Referred to impartial medical expert for opinion	19
Referee affirmed after hearing de novo	26
Referee reversed after hearing de novo	15
Awards amended	20
Orders to file reasons for rehearing	28
Appeals withdrawn	61
Total	1,017

PETITIONS FOR COMMUTATION

There were 893 petitions for commutation of payments filed during the year, of which number 581 were in disability cases, and 312 in fatal cases.

The Board acted upon petitions during the year as follows:

Disability Cases

Petitions granted	428; amount, $320,032.02
Petitions refused or dismissed	117
Petitions withdrawn	31
Orders rescinded	7

Fatal Cases

Petitions granted	184; amount, $137,385,66
Petitions refused or dismissed	116
Petitions withdrawn	27
Orders rescinded	5

The commutations granted during 1927 are further classified as follows:

For purchase of property	$119,903.25
Payment of indebtedness on property	119,836.24
Payment of other indebtedness	57,896.54
Purchase of furniture or clothing	5,870.03
Claimant leaving State or Country	70,890.04
Purchase of artifical appliances	5,157.71
For educational purposes	3,797.94
For engaging in business	74,065.93
Total	$457,417.68
Amount commuted prior to Jan. 1, 1927	$5,725,103.94
TOTAL commutations since Jan. 1, 1916	$6,182,521.62

Other petitions acted upon by the Board were:

Petitions for allowance of counsel fee	35
Petitions on agreed facts	5
Miscellaneous petitions	30
Petitions to authorize the payment of compensation of minors to persons other than a guardian or committee	311

WORKMEN'S COMPENSATION BOARD HEARINGS SCHEDULED FOR 1928

The Workmen's Compensation Board has arranged the following schedule of hearings for the year 1928, subject to such modification as may be necessary:

Harrisburg	January 17	Philadelphia	May 22-23-24
Scranton	January 18	Pittsburgh	June 27-28-29
Wilkes-Barre	January 19	Harrisburg	July 10
Shenandoah	January 20	Philadelphia	July 11-12-13
Philadelphia	January 24-25-26	Pittsburgh	September 12-13-14
Pittsburgh	February 15-16-17	Harrisburg	October 2
Harrisburg	March 13	Philadelphia	October 3-4-5
Philadelphia	March 14-15-16	Scranton	October 9
Pittsburgh	April 3-4-5	Wilkes-Barre	October 10
Harrisburg	May 15	Shenandoah	October 11
Scranton	May 16	Pittsburgh	November 14-15-16
Wilkes-Barre	May 17	Harrisburg	December 4
Shenandoah	May 18	Philadelphia	December 5-6-7

WORKMEN'S COMPENSATION DISTRICTS

Revised as of January 16, 1928

District No. 1 Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties. Referees: Herman H. Mattmann and Hiram H. Keller, 301 Manhattan Bldg., Fourth & Walnut Sts., Philadelphia.

District No. 2 Berks, Carbon, Lehigh, Northampton and Schuylkill Counties. Referee: Thomas C. Seidel, Ulmer Building, Pottsville.

District No. 3 Lackawanna, Monroe, Pike, Susquehanna, Wayne, and Wyoming Counties. Referee: George W. Beemer, Union National Bank Building, Scranton.

District No. 4 Adams, Cumberland, Dauphin, Franklin, Lancaster, Lebanon, Perry and York Counties. Referee: Harvey B. Lutz, Woolworth Building, Lancaster.

District No. 5 Bradford, Cameron, Clinton, Lycoming, Northumberland, Potter, Snyder, Sullivan, Tioga and Union Counties. Referee: Edward P. Mackey, Room 5 Hayman Building, 28 E. Third St., Williamsport.

District No. 6 Bedford, Blair, Center, Fulton, Huntingdon, Juniata and Mifflin Counties. Referee: Jacob Snyder, Commerce Building, Altoona.

District No. 7 Clarion, Crawford, Elk, Erie, Forrest, McKean, Mercer, Venango and Warren Counties. Referee: G. Scott Smith, Kane Trust & Savings Building, Kane.

District No. 8 Allegheny, Beaver, Butler, Greene, Lawrence and Washington Counties. Referees: L. E. Christley and David B. Johns, Fulton Building, Sixth St. & Duquesne Way, Pittsburgh.

District No. 9 Columbia, Luzerne and Montour Counties. Referee: Asa E. Lewis, Hollenbach Coal Exchange Building, Wilkes-Barre.

District No. 10 Fayette, Somerset and Westmoreland Counties. Referee: John R. Keefer, 609 First National Bank Building, Greensburg.

District No. 11 Armstrong, Cambria, Clearfield, Jefferson and Indiana Counties. Referee: Frank A. Hess, Dubois.

EARLY DIAGNOSIS OF TUBERCULOSIS IN INDUSTRY

William Paul Brown, M.D.,
Medical Secretary,
Pennsylvania Tuberculosis Society

The nation-wide effort planned for March 1928 to popularize early discovery of tuberculosis has a distinct application to health work in factories. This educational campaign is promoted by the National Tuberculosis Association and in Pennsylvania is directed by the Pennsylvania Tuberculosis Society. It is endorsed by and has the active cooperation of the Pennsylvania Department of Labor and Industry, as well as the State Medical Society, the American Medical Association, the Pennsylvania Department of Health, and the American Public Health Association. The campaign also is receiving the cooperation of the Manufacturers Association.

Along with other groups of citizens, many employers and workers harbor mistaken ideas as to the causes of tuberculosis, the prevention of the disease, and the methods of treatment.

While it is almost a truism that prompt discovery of the infection is of great value in enabling a cure; yet a suprising number of persons delay the expert study of their lungs. No one would similarly neglect a fire as evidenced by smoke coming from a waste-basket which shortly could destroy the house.

Many are mistaken in estimating the type and expense of treatment. They continue at work a few months, with high penalty in the spread of the condition into new areas of their body. Treatment, if begun early, can often be effective at home or at a nearby hospital, with return to the same occupation as before the illness.

At first glance, outdoor employments seem more favorable for the consumptive, but it is found that teamsters and chauffeurs have a tuberculosis death rate (28%) three times that of some of the indoor workers such as the cabinetmakers, in whom 10.9 per cent of the deaths are from tuberculosis. Physical development, standards of living, social conditions, and habits enter into any consideration of causes of the disease, and are of more importance than merely working out-of-doors.

Expensive trips to remote climates are rarely needed to obtain prompt control of the illness, especially of the early types. The folly of delay in treatment is apparent to the average person. Yet, in a courageous but misguided attempt to aid the family finances, the affected individual is spurred on to continued employment while

increasingly infected and ill. The result is disastrous. Years of treatment become necessary where months would suffice with immediate diagnosis and care.

Every person is wise to have a yearly medical examination, with advice as to faulty conditions or habits that are noted. Thus, not only lung conditions but also other tendencies toward disease are checked while still almost trivial.

Tuberculosis is common among industrial workers. It merits more attention from employers and medical industrial services as well as from the men themselves. The estimate of 1 per cent of the population of the nation having active tuberculosis does not apply to the industrial group where the risks may be said to be greater. For instance tuberculosis is the cause of 35 per cent of all deaths of textile workers; 29 per cent of deaths among printers; 25 per cent among machinists. For the nation, tuberculosis causes from 8 per cent to 10 per cent of the total deaths.

In a total of 3,820 examinations in factories by the Philadelphia Health Council, seventy persons were found to be tuberculous, or 1.8 cases for each 100 examined. Therefore, in the routine but thorough study of employes, a total of between 1 per cent and 2 per cent can be expected to reveal the presence of tuberculosis. In a factory with 2,000 workers, this would mean the presence of twenty to forty cases; ten of which can be expected to be in need of immediate treatment, and all should have monthly study of their condition. This method promises best results in reducing the tuberculosis toll in the ranks of industry.

The danger signals which may mean the presence of the disease, and which always call for a medical examination with probably x-ray picture of the lungs, are continued coughing; fatigue; easy tiring; spitting in the mornings, even if slight; continued hoarseness; bloody sputum, or blood-streaked; fever; night sweats; pain in the chest; pleurisy; and loss of weight. The presence of one or two of these symptoms should be the warning signal. Very frequently the patient has not lost weight, and appears fairly healthy while having a fair amount of active tuberculosis.

These symptoms are particularly significant if someone else in the family is known to have had tuberculosis. The germ is known to lie dormant for as long as thirty years before it again shows its presence by causing another case of tuberculosis in the family. It is therefore a family disease, preventable through vigilance in one's discovery of the illness at the earliest moment.

Industrial medical service has shown much progress in expanding from surgical and first-aid service. Now, in many plants, thorough medical examination is given at regular intervals and advice toward

prevention of disease is made to fit the needs of the individual. It has been shown that time lost from sickness is more than tenfold that lost from accidents. The reduction of this absenteeism is achieved by real medical service in industry.

It is now possible to demonstrate that the medical service not only pays its way but brings a profit. The cash profit is augmented by the improved health of the worker, with contentment and greater net earnings under this scheme.

The shop with 100 employes keeps an average of three men on the payroll who can fit into the job of the man absent from illness.

The combination of several small plants under the supervision of a visiting industrial nurse and skilled physician has made the service available to small plants.

Pioneer experiment in this line has been a marked success under the direction of the Philadelphia Health Council and Tuberculosis Committee.

The larger plants already have devoted much time to medical study of employes. At the Westinghouse works, East Pittsburgh, the State Department of Health has for several years maintained a tuberculosis clinic. It is popular with the employes, who attended it freely, to the number of nearly 400 per month. Such success in prevention and early diagnosis of tuberculosis through industrial clinics is most encouraging.

It is significant that a large part of the anti-tuberculosis effort of the nation has been devoted to home-visiting, to school health promotion, and to dispensaries and clinics. But, as 60 per cent of the deaths from tuberculosis occur in men, it is apparent that emphasis on industrial health problems will reach the group where the toll is very great.

The results already achieved from the annual medical examination of employes and the tuberculosis prevention and detection efforts in industry promise a further reduction in this widespread and disabling disease. Tuberculosis continues to be the leading cause of death between the ages of 15 and 44. The average age of those dying from tuberculosis is about 35, while the average length of life for this same group is estimated by life insurance actuaries as 56 years if tuberculosis had not intervened. The loss to the nation, to the employer through death of skilled workmen, to the family from prolonged illness and loss of the wage earner, warrants increased attention to this disease.

The Pennsylvania Tuberculosis Society and allied organizations consider health service in industry one of the most effective of public health endeavors.

COOPERATION IN ENFORCEMENT OF STATE BUILDING LAWS

By Charles J. Gotwalt,

Chief, Building Section,

Department of Labor and Industry

The Pennsylvannia Fire and Panic Act of 1909 with amendments of 1917, 1919, 1921, and 1925 has been repealed, and a new Act of the General Assembly of 1927, known as Act 299, became effective April 27, 1927.

The new law provides for the safety of persons employed, housed, or assembled in certain buildings and structures, not in cities of the first class, second class, and second class A, by requiring certain construction, ways of egress, equipment maintenance, and the submission of plans of buildings and structures for examination and approval. The Department of Labor and Industry has been given the power to promulgate rules and regulations for enforcing all of these requirements. To this end, the Department of Labor and Industry has been very active in seeking the cooperation of Departments of Public Safety, city building inspectors, city engineers, borough managers, engineers, and all persons having authority in zoning or planning codes for fire protection and for means of egress from any buildings or structures which are governed by the Act.

The Act is specific in naming the buildings, grandstands, stadiums, amusement park equipment, etc., which come within its scope; and practically every structure to be hereafter erected is included except one-story factory buildings and private dwellings. One section of the Act specifies that it is the duty of the owners, architects, or contractors to submit to the Department of Labor and Industry, Harrisburg, duplicate plans of any building coming within the scope of the Act either before erecting, adapting, remodeling, or altering; and it is unlawful to begin building operations until the plans have been examined and approved by the Department of Labor and Industry.

It is not permissible to erect outside iron fire escapes as means of egress for buildings hereafter erected, although fire escapes are permitted on existing buildings where the alterations and additions do not constitute one-third of the size of the completed building.

A special effort has been made to enlist the services of the city engineers, city building inspectors, and borough managers to explain to the public the necessity of submitting plans for approval before building permits are issued. In view of this situation, in some

cities and boroughs the authorities have refused to issue permits for buildings coming within the scope of the Act unless the owner or architect first secures approval of the plans by the Department of Labor and Industry. In some cases, the city and borough authorities have established a rule that owners and architects will be advised of the State laws, even though the permit is issued, to avoid delays in building operations, having in mind the thought that if the owner is aware of the State law, he will go no further than the excavation or the foundation walls, so that there will be no possibility of doing a lot of work which might have to be undone. In one instance, a large notice was posted to the effect that the owner's attention is called to the necessity of receiving approval of plans at Harrisburg, and that the permit issued gives the owner authority to proceed at his own risk.

An important provision of the new Fire and Panic Act is that the Chief of the Fire Department is equally responsible with the Department of Labor and Industry for the enforcement of the provisions of the Act, and of the regulations of the Department pertaining to the removal of obstructions to exits, to maintenance of aisles, passageways, stairways leading to or from exits in all buildings covered by the Act, and to the inspection and maintenance of emergency lighting systems.

The field inspection force of the Department of Labor and Industry is constantly keeping in touch with the various city and borough officials, and according to all reports, cooperation of these officials has been promised so that there should be very little occasion for those interested in building to say that they have never heard of certain State laws covering building operations.

INDUSTRIAL BOARD

The regular monthly meeting of the Industrial Board was held in the offices of the Department on January 19, 1928. In addition to the routine work several items of business of special interest were disposed of.

Two new interpretations of the Elevator Regulations were approved. They are as follows:

> "Where windows in elevator shaftways of fireproof construction are immovable and are only constructed for lighting purposes, it is interpreted that the intent of Rule 219 (f) (AI) is complied with where the window ledges and tops of window offsets are beveled off at a sufficient angle to eliminate shearing hazards."

> "Where sidewalk elevators of the multiple suspension type are used in accordance with the interpretation approved by the Industrial Board, November 17, 1927, it is permissible to use 8″ chain sheaves instead of 12″ sheaves when three chains are installed."

One of the most important actions of the meeting was the reapproval of the following rules, regulations, and interpretations which had previously been adopted for the carrying into effect of the provisions of the Fire and Panic Act of 1909, as amended:

"Emergency Lighting Regulations, approved November 18, 1926; Rules for Means of Egress from Places of Public Assembly, approved January 12, 1927; Rules for Egress from Lodging Houses, Boarding Houses and Rooming Houses, approved May 26, 1926; Rules for Construction of Stair Towers, approved January 8, 1926; Rules for Spiral or Winding Stairways, approved September 23, 1926; Rules for Construction of Garages and Oil Storage Compartments, approved February 25, 1926; Rules for Scope of Emergency Lighting Regulations, approved June 17, 1926; interpretations of the Fire and Panic Act of 1909 Affecting Installation of Emergency Lighting Systems, approved December 11, 1925; Interpretation Covering Installation of Emergency Lighting Devices in Open Air Dance Pavilions, approved November 11, 1925; Definition of Tenement, Apartment House or Flat and Apartment, approved October 15, 1926; Rules for Installation of Sprinkler and Fire Alarm Systems, approved November 18, 1926; Rules for Installation of Proscenium Curtains in Theatres, approved January 8, 1926; Rules for Installation of Oil Burning Equipment in Theatres, approved January 8, 1926; Rules for Installation of Blowers in Motion Picture Booths, approved

April 21, 1925; Rules for Construction of Booths Outside of Building Walls of Theatres, approved May 19, 1925; Rules Prohibiting Open Flames in Theatres, approved May 19, 1925; Rules Specifying Sizes of Port Shutters for Booths, approved September 23, 1926; Specifications for Construction of Fire Escapes, approved January 12, 1927, as amended November 17, 1927; Rules for Construction of Compartments for Housing Gasoline Emergency Lighting Devices, approved December 9, 1924; Rules Affecting Motion Picture Theatres which run Prologues Requiring Stage Scenery, approved July 8, 1925; Definition of a Story Height, approved February 14, 1922."

This Act was repealed at the 1927 Session of the General Assembly through the passage of a new Act, broadened in its scope, and giving to the Department more regulatory powers than the Act of 1909. The reapproval of the rules, regulations, and interpretations was for the purpose of making them effective under the new Act.

DEPARTMENTAL NOTES

The report of the investigation of the hazards of spray coating which was made by the Department during 1926 has been received from the printer. This report is one of the most important documents ever published by the Department.

The investigation was conducted by the Bureau of Industrial Standards under the specific direction of Dr. Elizabeth B. Bricker, Chief of the Hygiene and Sanitation Section. The Department will be pleased to send copies to anyone requesting them.

Sheldon W. Homan of the Bureau of Inspection has been transferred to the Bureau of Industrial Standards. Mr. Homan has been an inspector in various districts of the state since July 2, 1925. His experience in the field and his technical training amply fit him for his new duties as an assistant in technical research work.

The Bureau of Industrial Standards is continuing its safety education work by providing speakers for safety meetings. Cyril Ainsworth, Director of the Bureau, addressed the plant safety committee of the Viscose Company at its recent annual dinner meeting. John S. Spicer, Chief of the Accident Investigation Section, attended the safety meetings of the Frog, Switch and Manufacturing Company at Carlisle, and the Lebanon Steel Foundry at Lebanon, and talked to the employes on their plant accident records. Dr Elizabeth B. Bricker addressed the recent annual meeting of the Pennsylvania Thresherman's Association on "First Aid." The Bureau will be pleased to arrange for speakers for accident prevention meetings when requested.

REVIEW OF INDUSTRIAL STATISTICS

Prepared by

THE BUREAU OF STATISTICS

THE LABOR MARKET

The summary report of the activities of State Employment offices for the month of December, 1927, indicates a sharp increase in unemployment. The report shows a total of 9,906 applicants for jobs during the five-week period covered by the report. Employment openings numbered only 3,984, and the number of placements made dropped to 2,949. In other words, applicants for employment as registered at the State Employment offices during December out-

numbered existing vacancies in the ratio of 5 to 2. Applicants outnumbered placements by nearly 7 to 2. The actual figures for December show a ratio of 249 applicants for every 100 available jobs and 336 applicants registered for every 100 placements made. For November, 1927, these same ratios were 209 to 100 and 279 to 100 respectively.

Two very significant facts appear in the report for December. The first is that there is a considerable number of workers idle in virtually every line of industry, and the second is that the ever-present problem of finding adequate employment for unskilled labor is rapidly assuming a more serious aspect. In December, for example, 2,373 unskilled laborers applied for assistance in securing work. State Employment officers succeeded in placing only 945, or 40 per cent of these. If this proportion of unemployment of unskilled labor is prevalent throughout the state, there is indeed cause for grave concern as to how this situation can be relieved promptly.

EMPLOYMENT, WAGES, AND HOURS WORKED

December reports from 798 manufacturing establishments and 32 construction companies show that 6,000 workers were dropped from payrolls during the period November 15 to December 15, 1927. This was a decrease in employment of 2.2 per cent compared with the preceding month. Wage payments for the same periods were 1.1 per cent less. Average weekly earnings of workers in December were slightly higher than in November. Generally, working hours for December remained practically the same as in November.

In the metal industry, blast furnace operation showed some improvement. Seasonally increased business was reported by several plants. Average earnings of workers at one large furnace rose from $20.92 per week in November to $32.61 in December. A general increase of 8 per cent in working time was reported.

In structural iron works slightly decreased employment was reported by seven firms, but earnings were much higher and there was a general increase of hours worked.

Stove factories reported dull business and many departments were working on a short schedule of hours.

Business in the electrical apparatus industry showed decided improvement. Higher earnings for workers were reported by 14 of the 17 firms in this group. Increases were particularly noticeable in radio, battery, and wire manufacturing lines.

Increased production was reported by automobile plants. Employment increases were reported by nearly all firms. Increased demand, brought about by the appearance of many new models apparently, is responsible for the increase. Plants manufacturing auto bodies and parts were especially busy.

Work in woolen mills was slowing down after a big month in November. One showed a drop in employment from 2,069 in November to 1,401 in December. Generally, however, business in the industry seemed normal for this time of the year.

Cigar factories reported large reductions in employment. These reductions on the whole were short furloughs. It is customary in the cigar industry to close down for a week or two during the Christmas and New Year holidays.

Curtailed production was reported by cement and glass plants. Decreased demand for cement necessitates the closing of many small operations during the winter months. Reduced employment was reported by a majority of firms in the glass industry. Small orders and plant repairs were responsible for the reductions. At one plant a strike was in progress.

Improvement was seen in the furniture industry. Slight gains in employment were reported by 7 firms. One factory added 150 employes to its payroll during December following a complete shutdown during November.

Wooden-box manufacturers reported a 15 per cent decline in employment. Reduced forces were reported by all firms in this group.

There was a 22.5 per cent decrease of employment in the construction industry in December, 1927, compared with November. This big reduction in employment was seasonal and corresponds closely to the 21.3 per cent decline reported for the same month in 1926. A review of the index of employment for the construction industry in 1927 shows that employment throughout 1927 has been approximately 23 per cent lower than last year. Street and highway construction reported the largest drop in employment. The number employed by the three companies reporting to the Department dropped from 1,690 in November to 973 in December, a decline of 42.4 per cent. Due to extremely favorable weather, highway construction forces have been more fully employed during the late fall and early winter months in 1927 than was the case in 1926.

Sharp cuts in working time were reported by powder manufacturers. The report for one firm of this group showed a drop in average weekly earnings for workers amounting to more than $10.00.

The rubber tire industry reported a greatly increased volume of business. Weekly earnings for workers in one large plant climbed from $29.91 in November to $34.62 in December.

In summary, it can be said that the business outlook as indicated by the December reports is not nearly so favorable as many writers have predicted. The gradual recessions in manufacturing employment that have marked the year 1927 have continued throughout December. The level of manufacturing employment for December,

1927, is approximately 10 per cent below the employment level of a year ago. What the tendency of business will be during 1928 is uncertain. The one undeniable fact is that the employment and wage figures as reported to the Department do not indicate that an upward swing of business has begun.

INDUSTRIAL ACCIDENTS AND COMPENSATION COSTS

The Bureau of Workmen's Compensation received reports of 152 fatal and 11,771 non-fatal accidents during the month of December, 1927. The December accident totals were the lowest reported during any month in 1927. Compared with November, fatal accidents were 21 per cent lower and non-fatal accidents were 10 per cent lower. A comparison of the 1927 accident totals, month for month, with those for 1926 shows that in only one month during 1927 (January), the accident total was above that for 1926.

The summary accident figures for the year 1927 compared with 1926 are as follows:

Year	*Fatal*	*Non-fatal*
1926	2,116	178,284
1927	2,064	158,690
Decrease in 1927	—52 (2.5%)	—19,584 (11%)

A comparison of the number of fatalities reported during 1927 with those reported during 1926 reveals some interesting changes when separated into industry groups. Credit is due the manufacturing industries for showing the greatest reduction in fatal accidents during 1927. Fatal accidents for manufacturing industries dropped from 469 in 1926 to exactly 400 in 1927, a 17 per cent decrease. The bituminous coal mining industry shows the next best improvement. Fatalities in the bituminous industry fell from 443 in 1926 to 389 in 1927, a drop of 54, or 12 per cent. Reduced operations in bituminous mines due to the strike and the fact that no large mine disaster occurred in the bituminous fields during 1927 account for this decrease in the number of fatal accidents. Retail and wholesale trade were the only other two groups to show reductions. Fatalities in retail trade were 2 less than in 1926, and in wholesale trade 4 less than last year.

The state and municipal group shows the largest increase in fatal accidents. A total of 92 state and municipal employes were reported killed during 1927, an increase of 22, or 31 per cent over last year. This increase is due principally to the unusually large number of police officers and firemen killed during the year. The reports show

that 18 police officers and 13 firemen met violent death in the state during 1927. In Philadelphia, 28 municipal employes were killed during the year. In Pittsburgh, 9 city employes were fatally injured. Seventeen persons employed in state service were killed during 1927. The construction and contracting industry showed the second largest increase in fatalities, reporting 217 in 1926 and 235 during 1927, a gain of 18. Fatalities in anthracite mines also were 18 more than the number for last year. Quarry fatalities were 4 more than in 1926. The transportation and public utility group was charged with 273 fatalities, the same number as last year. Steam railroads reported 15 fatal accidents less than in 1926. Other transportation companies showed an increase of 4 fatalities. Public utility concerns excluding transportation companies had an increase of 11 fatal accidents over last year.

All industry groups with the exception of retail trading show reductions in the number of non-fatal accidents reported. Retail trade showed an accident gain of nearly 10 per cent. The increased hazards in the delivery department evidently are responsible for the increase. Decreases in non-fatal accidents for other industry groups in 1927 compared with 1926 are as follows: building and contracting 7.7 per cent, manufacturing 19.6 per cent, anthracite coal mining 3 per cent, bituminous coal mining 4 per cent, quarrying and mining other than coal mining 10.5 per cent, transportation and public utilities 11.6 per cent, wholesale trade 12.6 per cent, state and municipal 2 per cent, and miscellaneous 10.9 per cent.

Falling objects was the highest single cause of death in industry during 1927. There were 579 workers killed by falling objects during 1927, or 28 per cent of the total deaths from all causes. Eighty-eight of those killed by falling objects were employed in or about coal mines.

Cars and engines with a total of 350 was the second highest cause of fatal injury during 1927. The total number of deaths due to cars and engines during 1927, however, was 20 per cent less than last year. Of the 350 persons killed by cars and engines, 150, or 43 per cent, were employed on steam railroads; 131, or 37 per cent, were engaged in the coal mining industries; and 36, or 10 per cent, were employed in the metal industries. Ninety per cent of those killed by cars and engines were employed in these three industry groups.

Deaths numbering 221 were attributed to *falls of persons* during the year. This is a gain of 15 per cent over last year. Eighty-two of those killed by falls were engaged in the construction and contracting industry, 65 in manufacturing industries, 19 in coal mines, 4 in quarries, 7 in transportation, 11 in public utilities, 1 in a hotel, 9 in retail and 3 in wholesale trade, 15 in governmental employ, and

5 in miscellaneous employments. The increase in deaths attributed to falls was spread throughout all industry groups except in the transportation industry, where a slight decrease was recorded. Largest gains in deaths due to falls were shown in the construction, manufacturing, and public utility industries.

Other causes of fatal accidents that show gains over last year are boilers and pressure apparatus, transmission apparatus, elevators and hoists, motor vehicles, water and air craft, electricity, explosive substances, and miscellaneous causes.

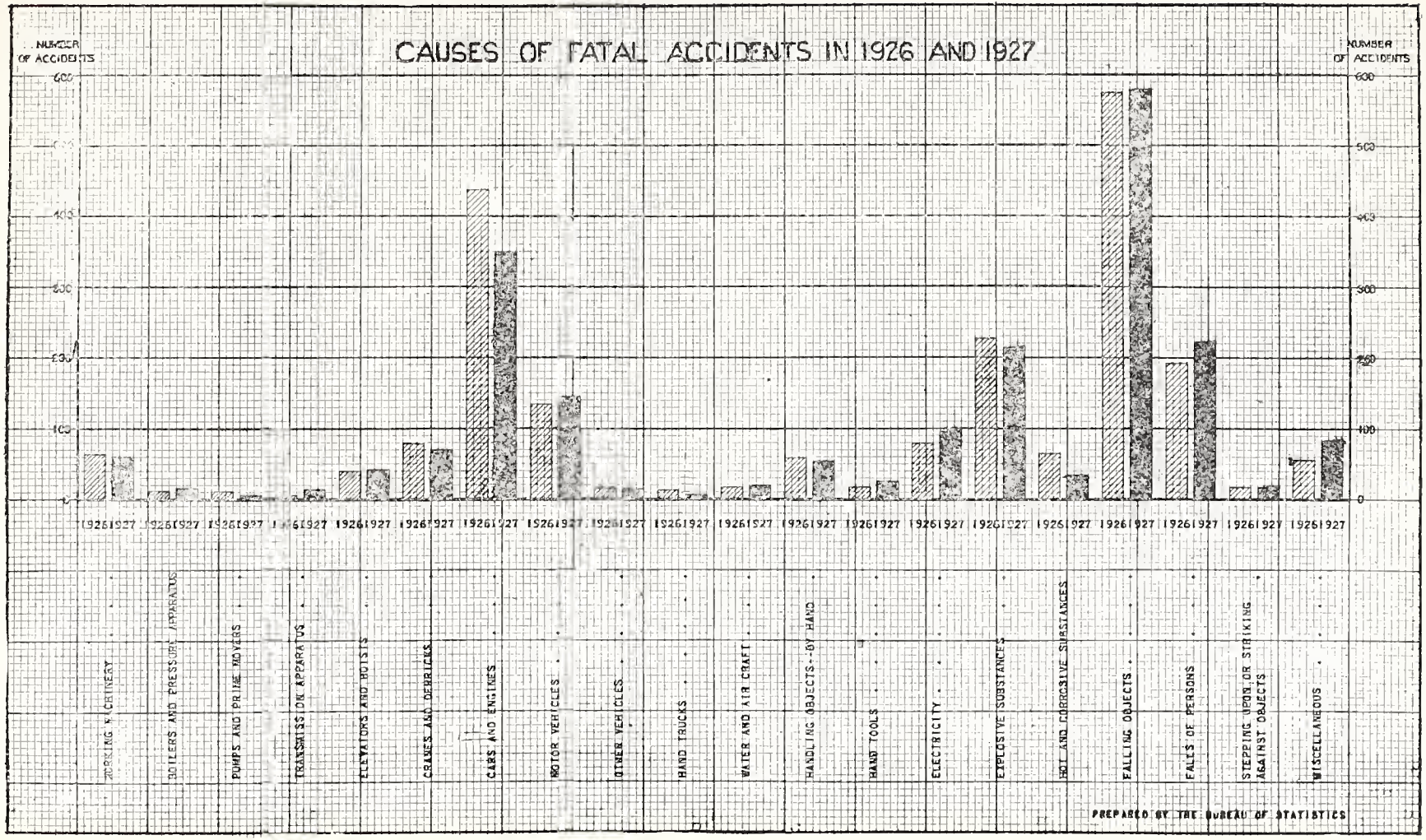
Because of the great reduction in the number of non-fatal accidents reported during 1927 (11 per cent), it might be expected that all causes of non-fatal accidents should show proportionate decreases. Such, however, is not the case. Five causes of non-fatal accidents show increases over last year. Injuries sustained through transmission apparatus rose from 147 cases in 1926 to 473 cases in 1927, a gain of 322 per cent. Accidents due to boilers and pressure apparatus were 35 per cent higher than in 1926. Accidents due to explosive substances were 22 per cent higher.

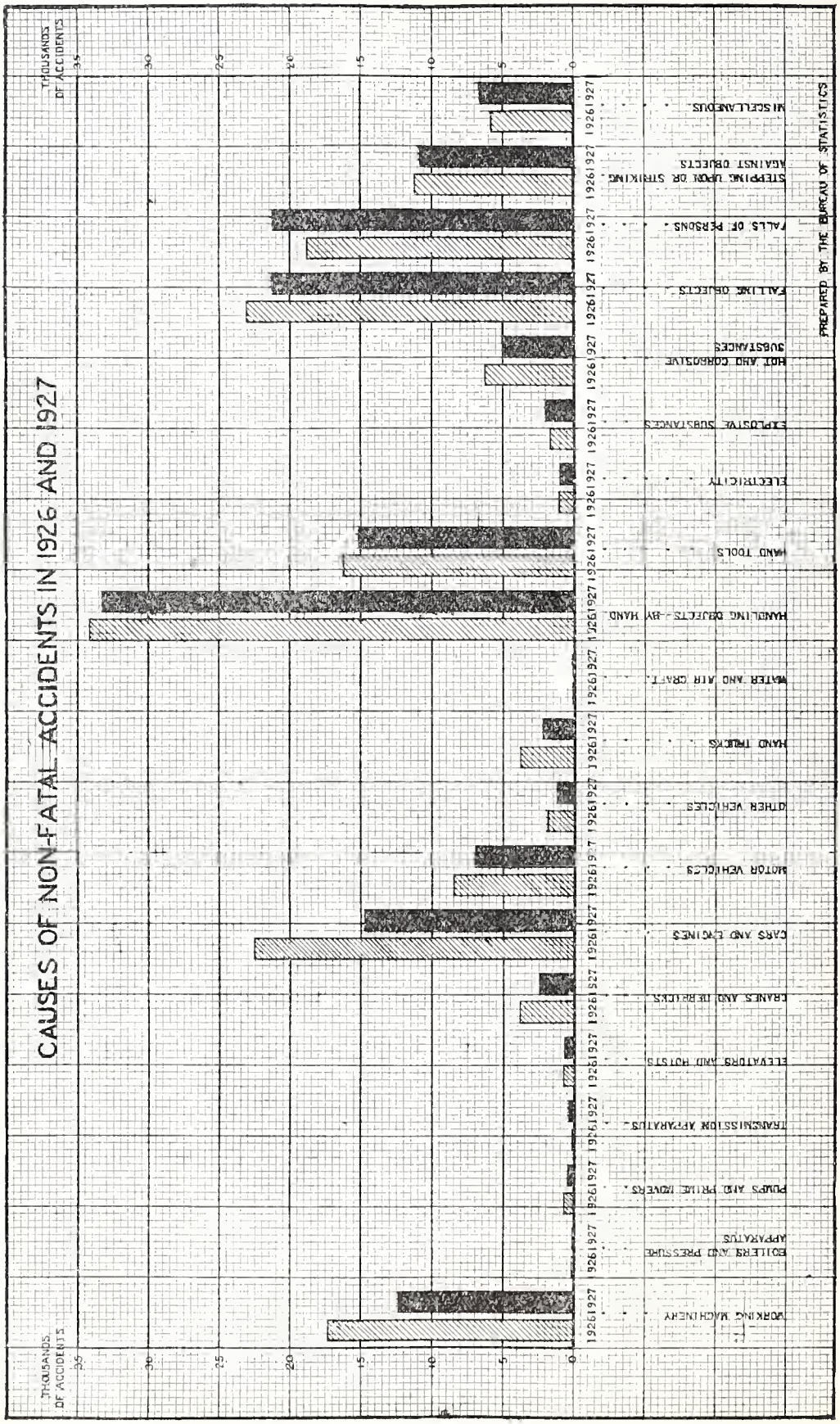
The increase or decrease of fatal and non-fatal accident causes in 1927 compared with 1926 are shown in charts accompanying this report.

Compensation agreements were approved in 74,886 cases during the year 1927, through which payments to injured workers or their dependents were authorized in the amount of $13,343,489 made up as follows:

2,001 fatal cases	$5,772,868
3,479 permanent disability cases	3,226,464
69,406 temporary disability cases	4,344,157

The amount of compensation awarded for the year 1927 is the highest figure reached during the twelve years that the compensation law has been in effect in Pennsylvania, and is an increase of $363,848, or 2.8 per cent, more than last year The full details of compensation cases for 1927 and the eleven preceding years may be found in the report of the Bureau of Workmen's Compensation for the calendar year 1927 published elsewhere in this bulletin.


CAUSES OF FATAL ACCIDENTS IN 1926 AND 1927
NUMBER OF ACCIDENTS
600
500
400
300
200
100
0
1926 1927
WORKING MACHINERY
BOILERS AND PRESSURE APPARATUS
PUMPS AND PRIME MOVERS
TRANSMISSION APPARATUS
ELEVATORS AND HOISTS
CRANES AND DERRICKS
CARS AND ENGINES
MOTOR VEHICLES
OTHER VEHICLES
HAND TRUCKS
WATER AND AIR CRAFT
HANDLING OBJECTS--BY HAND
HAND TOOLS
ELECTRICITY
EXPLOSIVE SUBSTANCES
HOT AND CORROSIVE SUBSTANCES
FALLING OBJECTS
FALLS OF PERSONS
STEPPING UPON OR STRIKING AGAINST OBJECTS
MISCELLANEOUS
PREPARED BY THE BUREAU OF STATISTICS


CAUSES OF NON-FATAL ACCIDENTS IN 1926 AND 1927
THOUSANDS OF ACCIDENTS
35
30
25
20
15
10
5
0
WORKING MACHINERY
BOILERS AND PRESSURE APPARATUS
PUMPS AND PRIME MOVERS
TRANSMISSION APPARATUS
ELEVATORS AND HOISTS
CRANES AND DERRICKS
CARS AND ENGINES
MOTOR VEHICLES
OTHER VEHICLES
HAND TRUCKS
WATER AND AIR CRAFT
HANDLING OBJECTS - BY HAND
HAND TOOLS
ELECTRICITY
EXPLOSIVE SUBSTANCES
HOT AND CORROSIVE SUBSTANCES
FALLING OBJECTS
FALLS OF PERSONS
STEPPING UPON OR STRIKING AGAINST OBJECTS
MISCELLANEOUS
1926 1927
PREPARED BY THE BUREAU OF STATISTICS

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF DECEMBER, 1927.

Industries	Persons applying for positions			Persons asked for by employers			Persons sent to positions			Persons receiving positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	9,906	6,623	3,283	3,984	2,505	1,4.9	4,084	2,617	1,467	2,949	1,975	974
Total: Industrial Group (skilled)	3,468	2,619	849	1,331	883	448	1,319	902	417	795	562	233
Building and Construction	635	635	----------	256	256	----------	260	260	----------	161	161	----------
Shipbuilding	54	54	----------	32	32	----------	32	32	----------	19	19	----------
Chemicals and Allied Products	1	1	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clay, Glass and Stone Products	1	1	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clothing	23	----------	23	34	2	32	2	----------	2	2	----------	2
Textiles	58	55	3	52	2	50	5	1	4	1	1	----------
Food and Kindred Products	38	25	13	15	3	12	12	----------	12	11	----------	11
Leather, Rubber and Composition Goods	44	14	30	38	2	36	31	1	30	27	1	26
Lumber, Woodwork and Furniture	97	97	----------	57	57	----------	53	53	----------	29	29	----------
Paper and Printing	6	6	----------	2	2	----------	2	2	----------	2	2	----------
Metals and Metal Products	692	692	----------	260	260	----------	269	269	----------	171	171	----------
Mines and Quarries	3	3	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Transportation and Public Utilities	448	445	3	124	124	----------	128	128	----------	82	82	----------
Hotel and Restaurants	197	53	144	84	22	62	78	19	59	48	12	36
Wholesale and Retail Trade	263	81	182	137	19	118	114	20	94	77	17	60
Miscellaneous	908	457	451	240	102	138	333	117	216	165	67	98
Total: Other Groups	6,438	4,004	2,434	2,653	1,622	1,031	2,765	1,715	1,050	2,154	1,413	741
Professional and Technical	477	413	64	159	146	13	178	159	19	60	56	4
Agriculture	16	16	----------	8	8	----------	7	7	----------	5	5	----------
Semi-Skilled	2,086	882	1,204	657	136	521	668	143	525	355	106	249
Unskilled	2,524	2,373	151	1,049	1,017	32	1,109	1,073	36	970	945	25
Casual and Day Workers[1]	1,335	320	1,015	780	315	465	803	333	470	764	301	463
November, 1927	8,971	5,978	2,993	4,294	2,768	1,526	4,296	2,822	1,474	3,213	2,222	991
October, 1927	9,118	6,018	3,100	4,475	2,792	1,683	4.488	2,909	1,579	3,297	2,260	1,037
September, 1927	12,668	8,627	4,041	5,136	3,202	1,934	5,321	3,466	1,855	3,963	2,657	1,306
December, 1926	11,811	8,205	3,606	6,379	4,281	2,698	6,596	4,644	1,952	5,452	3,882	1,570
December, 1925	11,301	8,564	2,737	6,960	5,082	1,878	6,374	5,488	1,886	6,414	4,816	1,598
December, 1924	11,022	7,918	3,104	6,396	4,844	1,552	6,371	4,977	1,394	5,603	4,379	1,224

[1] The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

Group and Industry	No. of plants reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Dec. 15, 1927	Nov. 15, 1927	Per cent change	Dec. 15, 1927	Nov. 15, 1927	Per cent change	Dec. 15, 1927	Nov. 15, 1927	Per cent change
All Industries (55)	830	268,764	274,836	— 2.2	$6,909,120	$6,982,792	— 1.1	$25.71	$25.41	+ 1.2
Metal Manufactures	240	101,846	103,427	— 1.5	2,759,427	2,725,735	+ 1.2	27.09	26.35	+ 2.8
Blast furnaces	10	2,265	2,270	— 0.2	69,108	64,298	+ 7.5	30.51	28.33	+ 7.7
Steel works and rolling mills	44	53,819	55,012	— 2.2	1,450,616	1,468,248	— 1.2	26.95	26.69	+ 1.0
Iron and steel forgings	10	1,785	1,751	+ 1.9	47,524	46,051	+ 3.2	26.62	26.30	+ 1.2
Structural iron work	10	3,607	3,797	— 5.0	107,064	102,384	+ 4.6	29.68	26.96	+10 1
Steam and hot water apparatus	19	4,738	4,719	+ 0.4	137,880	130,360	+ 5.8	29.10	27.62	+ 5 4
Stoves and furnaces	9	991	1,083	— 8.5	27,848	31,602	—11.9	28.10	29.18	— 3.7
Foundries	40	7,440	7,418	+ 0.3	205,728	200,277	+ 2.7	27.65	27.00	+ 2.4
Machinery and parts	39	8,644	8,422	+ 2.6	256,701	246,443	+ 4.2	29.70	29.26	+ 1.5
Electrical machinery and apparatus	17	7,191	7,363	— 2.3	180,743	172,039	+ 5.1	25.13	23.37	+ 7.5
Engines and pumps	10	3,124	3,252	— 3.9	81.076	75,982	+ 6.7	25.95	23.36	+11.1
Hardware and tools	19	6,283	6,345	— 1.0	148,432	140,868	+ 5.4	23.62	22.20	+ 6.4
Brass and bronze products	9	479	490	— 2.2	13,058	12,832	+ 1.8	27.26	26.19	+ 4.1
Jewelry and novelties	4	1,480	1,505	— 1.7	33,649	34,351	— 2.0	22.74	22.82	— 0.4
Vehicles	42	30,109	30,296	— 0.6	874,131	852,580	+ 2.5	29.03	28.14	+ 3.2
Automobiles	7	3,756	3,506	+ 7.1	119,972	105,180	+14.1	31.94	30.00	+ 6.5
Automobile bodies and parts	12	6,140	5,936	+ 3.4	201,998	186,518	+ 8.3	32.90	31.42	+ 4.7
Locomotives and cars	13	14,315	14,902	— 3.9	388,166	400,119	— 3.0	27.12	26.85	+ 1.0
Railroad repair shops	7	3,789	3,738	+ 1.4	103,248	99,113	+ 4.2	27.25	26.51	+ 2 8
Shipbuilding	3	2,109	2,214	— 4.7	60,747	61,650	— 1.5	28.80	27.85	+ 3.4
Textile Products	167	57,820	57,799	+ 0.0	1,324,405	1,318,432	+ 0.5	22.91	22.81	+ 0.4
Cotton goods	14	3,998	3,909	+ 2.3	95,117	98,529	— 3.5	23.79	25.21	— 5.6
Woolens and worsteds	16	6,692	7,194	— 7.0	148,595	158,532	— 6.3	22.20	22.04	+ 0.7
Silk goods	40	18,108	17,707	+ 2.3	373,197	352,544	+ 5.9	20.61	19.91	+ 3.5
Textile dyeing and finishing	10	1,942	1,959	— 0.9	48,695	48,173	+ 1.1	25.07	24.59	+ 2.0
Carpets and rugs	9	2,805	2,782	+ 0.8	74,882	72,228	+ 3.7	26.70	25.96	+ 2.9
Hats and caps	5	3,890	3,843	+ 1.2	103,982	106,607	— 2.5	26.73	27.74	— 3.6
Hosiery	28	12,022	11,958	+ 0.5	327,406	330,601	— 1.0	27.23	27.65	— 1.5
Knit goods, other	15	2,896	2,979	— 2.8	55,801	55,971	— 0.3	19.27	18.79	+ 2.6
Men's clothing	11	1,801	1,864	— 3.4	36,963	37,443	— 1.3	20.52	20.09	+ 2.1

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

Group and Industry	No. of plants reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Dec. 15, 1927	Nov. 15, 1927	Per cent change	Dec. 15, 1927	Nov. 15, 1927	Per cent change	Dec. 15, 1927	Nov. 15, 1927	Per cent change
Women's clothing	9	1,242	1,150	+ 8.0	19,147	17,520	+ 9.3	15.42	15.23	+ 1.2
Shirts and furnishings	10	2,424	2,454	— 1.2	40,620	40,284	+ 0.8	16.76	16.42	+ 2.1
Foods and Tobacco	102	22,055	23,500	— 6.1	465,658	487,664	— 4.5	21.11	20.75	+ 1.7
Bread and bakery products	29	4,362	4,384	— 0.5	127,649	127,511	+ 0.1	29.26	29.09	+ 0.6
Confectionery	14	4,727	4,650	+ 1.7	88,727	88,553	+ 0.2	18.77	19.04	— 1.4
Ice cream	11	1,141	1,191	— 4.2	36,597	37,969	— 3.6	32.07	31.88	+ 0.6
Meat packing	13	2,111	2,106	+ 0.2	62,494	63,118	— 1.0	29.60	29.97	— 1.2
Cigars and tobacco	35	9,714	11,169	—13.0	150,191	170,513	—11.9	15.46	15.27	+ 1.2
Stone, Clay and Glass Products	63	17,619	18,953	— 7.0	454,159	518,635	—12.4	25.78	27.36	— 5.8
Brick, tile and pottery	27	4,542	4,698	— 3.3	103,887	108,470	— 4.2	22.87	23.09	— 1.0
Cement	13	6,368	6,763	— 5.8	192,702	208,065	— 7.4	30.26	30.77	— 1.7
Glass	23	6,709	7,492	—10.5	157,570	202,100	—22.0	23.49	26.98	—12.9
Lumber Products	44	4,903	5,065	— 3.2	105,987	108,201	— 2.0	21.62	21.36	+ 1.2
Lumber and planing mills	19	2,254	2,431	— 7.3	48,945	52,824	— 7.3	21.71	21.73	— 0.1
Furniture	19	1,945	1,805	+ 7.8	46,273	42,349	+ 9.3	23.79	23.46	+ 1.4
Wooden boxes	6	704	829	—15.1	10,769	13,028	—17.3	15.30	15.72	— 2.7
Construction and Contracting	32	4,342	5,604	—22.5	116,424	160,028	—27.2	26.81	28.56	— 6.1
Buildings	19	1,381	1,623	—14.9	41,894	47,935	—12.6	30.34	29.53	+ 2.7
Street and highway	3	973	1,690	—42.4	26,541	54,243	—51.4	27.07	32.10	—15.7
General	10	1,988	2,291	—13.2	48,189	57,850	—16.7	24.24	25.25	— 4.0
Chemical Products	35	10,689	10,668	+ 0.2	309,205	312,490	— 1.0	28.93	29.29	— 1.2
Chemicals and drugs	15	1,206	1,202	+ 0.3	32,469	32,982	— 1.6	26.92	27.44	— 1.9
Coke	3	2,681	2,598	+ 3.2	78,780	76,431	+ 3.1	29.38	29.42	— 0.1
Explosives	3	565	541	+ 4.4	13,326	14,942	—10.8	23.59	27.62	—14.6
Paints and varnishes	9	1,059	1,106	— 4.2	29,626	30,215	— 1.9	27.98	27.32	+ 2.4
Petroleum refining	5	5,178	5,221	— 0.8	155,004	157,859	— 1.8	29.94	30.24	— 1.0

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

Group and Industry	No. of plants reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Dec. 15, 1927	Nov. 15, 1927	Per cent change	Dec. 15, 1927	Nov. 15, 1927	Per cent change	Dec. 15, 1927	Nov. 15, 1927	Per cent change
Leather and Rubber Products	50	11,436	11,561	— 1.1	258,670	256,653	+ 0.8	22.62	22.20	+ 1.9
Leather tanning	17	5,876	5,983	— 1.8	148,299	151,655	— 2.2	25.24	25.35	— 0.4
Shoes	22	3,935	3,938	— 0.1	67,520	67,530	— 0.0	17.16	17.15	+ 0.1
Leather products, other	7	686	722	— 5.0	15,162	14,432	+ 5.1	22.10	19.99	+10.6
Rubber tires and goods	4	939	918	+ 2.3	27,689	23,036	+20.2	29.49	25.09	+17.5
Paper and Printing	55	7,945	7,963	— 0.2	241,054	242,434	— 0.6	30.34	30.45	— 0.4
Paper and wood pulp	12	3,200	3,206	— 0.2	93,556	93,073	+ 0.5	29.24	29.03	+ 0.7
Paper boxes and bags	6	796	822	— 3.2	12,236	12,850	— 4.6	15.37	15.61	— 1.5
Printing and publishing	37	3,949	3,935	+ 0.4	135,262	136,531	— 0.9	34.25	34.70	— 1.3

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

Group and Industry	No. of plants reporting	Total weekly man-hours week ended			Average hourly wages week ended		
		December 15, 1927	November 15, 1927	Per cent change	December 15, 1927	November 15, 1927	Per cent change
All Industries (47)	489	6,855,105	6,875,817	— 0.3	$.568	$.568	0.0
Metal manufactures	167	3,261,106	3,230,404	+ 1.0	.607	.606	+ 0.2
Blast furnaces	8	110,296	102,161	+ 8.0	.579	.578	+ 0.2
Steel works and rolling mills	27	1,723,303	1,727,863	— 0.3	.617	.615	+ 0.3
Iron and steel forgings	8	66,750	60,673	+10.0	.554	.559	— 0.9
Structural iron works	5	44,266	50,160	—11.8	.586	.591	— 0.8
Steam and hot water heating apparatus	14	137,307	128,448	+ 6.9	.754	.774	— 2.6
Foundries	32	303,573	290,411	+ 4.5	.612	.615	— 0.5
Machinery and parts	29	328,494	311,164	+ 5.6	.605	.610	— 0.8
Electrical machinery and apparatus	12	153,092	176,984	—13.5	.538	.537	+ 0.2
Engines and pumps	8	114,813	107,765	+ 6.5	.626	.624	+ 0.3
Hardware and tools	14	200,278	195,875	+ 2.2	.527	.520	+ 1.3
Brass and bronze products	7	21,494	21,685	— 0.9	.561	.538	+ 4.3
Jewelry and novelties	3	57,440	57,215	+ 0.4	.496	.496	0.0
Vehicles	33	945,865	908,054	+ 4.2	.627	.627	0.0
Automobiles	7	180,587	158,365	+14.0	.664	.664	0.0
Automobile bodies and parts	9	327,329	298,789	+ 9.6	.600	.604	— 0.7
Locomotives and cars	9	249,758	263,620	— 5.3	.598	.611	— 2.1
Railroad repair shops	5	95,788	92,359	+ 3.7	.695	.662	+ 5.0
Shipbuilding	3	92,403	94,915	— 2.6	.657	.650	+ 1.1
Textile Products	67	1,015,529	975,365	+ 4.1	.442	.437	+ 1.1
Cotton goods	11	74,119	71,263	— 0.2	.472	.470	+ 0.4
Woolens and worsteds	10	150,846	145,187	+ 3.9	.464	.469	— 1.1
Silk goods	22	524,902	486,153	+ 7.8	.419	.416	+ 0.7
Textile dyeing and finishing	5	35,391	33,315	+ 6.2	.495	.495	0.0
Carpets and rugs	5	89,640	88,514	+ 1.3	.523	.512	+ 2.1
Hosiery	6	82,130	85,228	— 3.6	.453	.425	+ 6.6
Knit goods, other	8	59,201	62,705	— 5.6	.387	.370	+ 4.6
Foods and Tobacco	42	275,310	283,236	— 2.8	$.505	$.506	— 0.2
Bread and bakery products	17	78,076	76,379	+ 2.2	.519	.525	— 1.1
Confectionery	5	86,083	95,117	— 9.5	.442	.435	+ 1.6
Ice cream	7	40,007	39,807	+ 0.5	.567	.579	— 2.1
Meat packing	8	63,357	63,630	— 0.4	.539	.551	— 2.2
Cigars and tobacco	5	7,787	8,303	— 6.2	.459	.466	— 1.5

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Concluded)

Group and Industry	No. of plants reporting	Total weekly man-hours week ended			Average hourly wages week ended		
		December 15, 1927	November 15, 1927	Per cent change	December 15, 1927	November 15, 1927	Per cent change
Stone, Clay and Glass Products	37	478,188	541,954	—11.8	.545	.556	— 2.0
Brick, tile and pottery	17	126,223	137,612	— 8.3	.526	.530	— 0.8
Cement	7	187,463	202,658	— 7.5	.510	.514	— 0.8
Glass	13	164,502	201,684	—18.4	.599	.615	— 2.6
Lumber Products	35	125,583	124,106	+ 1.2	.514	.500	+ 2.8
Lumber and planing mills	15	47,590	48,895	— 2.7	.533	.535	— 0.4
Furniture	16	67,326	61,903	+ 8.8	.523	.500	+ 4.6
Wooden boxes	4	10,667	13,308	—19.8	.374	.370	+ 1.1
Construction and Contracting	27	182,388	248,101	—26.5	.575	.579	— 0.7
Buildings	16	49,640	56,589	—12.5	.772	.751	+ 2.8
Street and highway	3	48,730	98,086	—50.3	.541	.553	— 2.2
General	8	84,018	93,426	—10.1	.480	.501	— 4.2
Chemical Products	17	94,114	94,775	— 0.7	.520	.520	0.0
Chemicals and drugs	11	47,209	46,576	+ 1.4	.491	.492	— 0.2
Paints and varnishes	6	46,905	48,199	— 2.7	.549	.547	+ 0.4
Leather and Rubber Products	28	246,085	242,286	+ 1.6	.474	.480	— 1.3
Leather tanning	9	106,540	110,907	— 3.9	.539	.537	+ 0.4
Shoes	11	82,691	81,728	+ 1.2	.324	.350	— 7.4
Leather products, other	4	9,163	9,610	— 4.7	.529	.527	+ 0.4
Rubber tires and goods	4	47,691	40,041	+19.1	.581	.575	+ 1.0
Paper and Printing	36	230,937	227,536	+1.5	.588	.585	+ 0.5
Paper and wood pulp	8	143,767	142,137	+ 1.1	.549	.544	+ 0.9
Paper boxes and bags	3	10,728	10,834	— 1.0	.341	.356	— 4.2
Printing and publishing	25	76,442	74,565	+ 2.5	.696	.697	— 0.1

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

City Areas	No. of Plants Reporting	Number of wage earners week ended			Total weekly wages week-ended			Average weekly earnings week ended		
		December 15 1927	November 15 1927	Per cent Change	December 15 1927	November 15 1927	Per cent Change	December 15 1927	November 15 1927	Per cent Change
Allentown-Bethlehem-Easton	79	21,437	21,873	— 2.0	$556,276	$564,480	— 1.5	$25.95	$25.81	+ 0.5
Altoona	15	2,375	2,307	+ 2.9	49,955	51,059	— 2.2	21.03	22.13	— 5.0
Erie	14	4,059	4,072	— 0.3	121,978	123,196	— 1.0	30.05	30.25	— 0.7
Harrisburg	32	6,458	6,443	+ 0.2	130,500	134,152	— 2.7	20.21	20.82	— 2.9
Hazleton-Pottsville	19	4,391	4,374	+ 0.4	98,351	95,622	+ 2.9	22.40	21.86	+ 2.5
Johnstown	12	940	1,018	— 7.7	23,033	22,787	+ 1.1	24.50	22.38	+ 9.5
Lancaster	30	4,792	4,740	+ 1.1	101,575	103,581	— 1.9	21.20	21.85	— 3.0
New Castle	9	5,597	5,735	— 2.4	160,175	148,280	+ 8.0	28.62	25.86	+10.7
Philadelphia	248	86,864	89,410	— 2.8	2,404,358	2,423,498	— 0.8	27.68	27.11	+ 2.1
Pittsburgh	99	61,365	62,872	— 2.4	1,632,290	1,682,081	— 3.0	26.60	26.75	— 0.6
Reading-Lebanon	65	21,113	21,282	— 0.8	519,601	537,653	— 3.4	24.61	25.26	— 2.6
Scranton	35	5,003	4,852	+ 3.1	100,416	93,617	+ 7.3	20.07	19.29	+ 4.0
Sunbury	26	10,320	10,102	+ 2.2	230,983	216,045	+ 6.9	22.38	21.39	+ 4.6
Wilkes-Barre	21	5,602	6,865	—18.4	123,132	140,866	—12.6	21.98	20.52	+ 7.1
Williamsport	23	5,344	5,209	+ 2.6	136,465	129,291	+ 5.5	25.54	24.82	+ 2.9
York	45	6,316	6,670	— 5.3	129,592	131,636	— 1.6	20.52	19.74	+ 4.0

ACCIDENTS OCCURRRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

	ACCIDENT REPORTS RECEIVED				AGREEMENTS APPROVED			
1927	Fatal	Permanent Disability	Temporary Disability	Total	Fatal	Permanent Disability	Temporary Disability	Total
July	176	88	12,460	12,724	198	315	5,780	6,293
August	172	148	13,512	13,832	170	273	5,429	5,872
September	163	136	13,143	13,442	152	311	5,503	5,966
October	163	132	13,432	13,727	227	293	5,379	5,899
November	193	167	12,920	13,280	148	207	5,299	5,654
December	152	138	11,481	11,771	155	342	6,118	6,615
Total—1927	2,064	1,665	157,025	160,754	2,001	3,479	69,406	74,886
1926								
July	190	174	15,412	15,778	124	281	5,768	6,173
August	183	158	16,355	16,697	176	281	6,535	6,992
September	231	181	15,685	16,097	179	290	5,012	5,481
October	166	167	16,222	16,555	153	267	6,736	7,156
November	181	160	14,689	15,030	221	316	6,049	6,586
December	203	151	14,548	14,902	137	326	5,455	5,918
Total—1926	2,116	1,904	176,380	180,400	1,830	3,563	69,942	75,335
*Grand Total	28,866	11,264	2,137,692	2,177,822	23,756	23,963	795,363	843,082

*Since the inception of the Act, January 1, 1916.

COMPILED FROM RECORDS IN THE BUREAU OF WORKMEN'S COMPENSATION

COMPENSATION AWARDED AND PAID

	Awarded				Paid			
1927	Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded	Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Permanent Disability Compensation Paid
July	$ 1,389,540	$ 604,010	$ 294,561	$ 490,969	$ 1,204,087	$ 307,034	$ 406,084	$ 490,969
August	1,140,955	484,986	271,678	384,291	1,081,893	256,510	441,092	384,291
September	1,058,988	426,309	287,559	345,120	902,607	278,397	279,090	345,120
October	1,120,444	514,306	238,293	367,845	1,017,146	325,006	324,295	367,845
November	1,005,356	511,597	184,903	308,856	824,175	246,964	268,355	308,856
December	1,214,804	431,969	327,799	455,036	983,473	276,085	252,352	455,036
Total—1927	$13,343,489	$5,772,868	$3,226,464	$4,344,157	$11,097,889	$ 3,492,763	$ 3,860,969	$4,344,157
1926								
July	$ 949,519	$ 330,807	$ 244,261	$ 374,451	$ 939,189	$ 298,707	$ 266,031	$ 374,451
August	1,174,190	538,537	260,857	374,796	863,901	238,184	250,921	374,796
September	1,225,075	622,938	287,105	315,032	857,469	308,133	234,804	315,032
October	987,188	457,284	191,136	338,768	877,597	278,827	260,002	338,768
November	1,238,613	599,747	300,440	338,426	814,109	229,529	246,154	388,426
December	1,084,444	420,704	328,805	334,935	933,508	305,998	292,575	334,935
Total—1926	$12,979,641	$ 5,278,927	$ 3,384,399	$ 4,316,315	$11,037,688	$ 3,529,120	$ 3,192,253	$4,316,315
*Grand Total	$134,998,944	$65,426,650	$27,881,333	$41,690,961	$93,551,436	$28,712,281	$23,148,194	$41,690,961

*Since the inception of the Act, January 1, 1916.

**PERMANENT INJURIES

1927	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	8	$ 20,056	6	$ 14,731	26	$ 51,976	20	$ 35,814	46	$ 65,013
August	13	31,089	6	13,768	22	43,184	13	20,310	51	75,731
September	14	33,780	4	10,169	13	26,602	12	22,607	62	93,165
October	10	25,800	5	11,610	17	36,456	13	23,264	43	61,051
November	11	27,211	1	2,572	14	28,563	6	10,742	31	47,654
December	11	28,380	2	2,440	17	36,215	17	31,594	69	107,843
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,410
1926										
July	7	$ 17,254	5	$ 12,056	19	$ 36,782	11	$ 18,249	41	$ 60,409
August	9	20,055	8	17,639	24	47,577	12	20,953	43	68,692
September	14	35,912	6	14,793	20	43,391	11	19,768	48	75,043
October	4	10,062	5	12,814	10	19,827	9	16,184	40	56,724
November	7	17,912	7	17,569	19	39,621	24	42,456	63	94,021
December	13	33,555	5	11,402	21	42,890	18	33,616	62	93,600
Total—1926	124	$ 311,378	83	$ 207,090	229	$ 458,088	192	$ 344,481	575	$ 870,732
*Grand Total	1,249	$2,745,577	894	$1,978,926	2,847	$5,165,199	1,717	$2,827,547	7,048	$9,764,411

**PERMANENT INJURIES (Concluded)

1927	Loss of Fingers		Loss of Phalanges		Miscellaneous		Total	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	Amount Awarded	Amount Paid
July	118	$ 40,259	104	$ 19,791	31	$ 46,921	$ 294,561	$ 406,084
August	112	36,970	83	15,624	21	35,002	271,678	441,092
September	125	45,165	115	21,164	22	34,907	287,559	279,090
October	124	44,892	102	20,028	10	15,192	238,293	324,295
November	105	35,481	69	12,444	9	20,236	184,903	268,355
December	165	56,754	121	23,860	22	40,713	327,799	252,352
Total—1927	1,502	$509,006	1,202	$ 226,122	209	$ 421,126	$ 3,226,464	$ 3,860,969
1926								
July	120	$ 42,104	114	$ 22,577	16	$ 34,830	$ 244,261	$ 266,031
August	117	40,610	109	19,887	10	25,444	260,857	250,921
September	127	40,877	107	20,709	19	36,612	287,105	234,304
October	123	41,938	112	19,679	11	13,908	191,136	260,002
November	133	46,749	116	22,775	12	19,337	300,440	246,154
December	101	35,005	123	22,867	20	55,870	328,805	292,575
Total—1926	1,553	$ 537,332	1,286	$ 241,319	188	$ 413,979	$ 3,384,399	$ 3,192,253
*Grand Total	6,763	$2,309,035	5,666	$1,060,442	801	$2,030,196	$27,881,333	$23,148,194

*Since the inception of the Act, January 1, 1916.

**Multiple losses separated respectively.

Note: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING DECEMBER, 1927

Cause	Total of all Industries		CONSTRUCTION AND CONTRACTING						COAL MINING				Mining, Other Than Coal Mining, and Quarrying		MANUFACTURING																	
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous				Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber, and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	NF	F	NF	F	N F	F	N F	F	NF	F	N F	F	FN	F	FN	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF
Total of all causes	152	11,619	3	934	6	268	6	252	39	2,036	27	1,663	4	157	35	3,826	2	221	2	308	1	170	2	336	1	132	3	320	1	178	3	211
Working machinery	4	914	--	25	--	10	--	15	---	31	---	75	---	8	3	672	--	19	1	20	--	67	--	23	--	35	1	85	--	60	--	58
Boilers and pressure apparatus	-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	--	-----	--	-----
Pumps and prime movers	1	33	--	7	--	3	--	1	---	-----	---	1	---	1	1	11	1	7	--	1	--	-----	--	-----	--	-----	--	-----	--	1	--	2
Transmission apparatus	1	24	--	-----	--	1	--	1	---	5	---	2	1	1	---	12	--	2	--	-----	--	1	--	-----	--	1	--	-----	--	1	1	3
Elevators and hoists	3	66	--	6	--	1	--	-----	---	7	1	5	---	-----	1	29	--	2	--	3	--	6	--	2	--	1	--	1	--	1	1	3
Cranes and derricks	5	147	--	14	--	10	--	12	---	8	---	3	---	4	3	84	1	2	--	-----	--	-----	--	1	--	1	1	2	--	-----	--	-----
Cars and engines	23	1,125	--	11	--	5	--	8	2	349	6	469	---	13	5	92	--	3	--	23	--	-----	--	-----	--	-----	--	2	1	-----	--	-----
Motor vehicles	12	634	1	49	3	31	1	21	---	2	---	4	---	8	2	180	--	17	--	12	--	3	--	30	--	2	1	10	--	8	--	4
Other vehicles	-----	108	--	4	--	-----	--	8	---	2	---	1	---	1	---	34	--	4	--	-----	--	-----	--	13	--	1	--	12	--	2	--	1
Hand trucks	-----	158	--	13	--	6	--	9	---	2	---	-----	---	-----	---	89	--	2	--	13	--	-----	--	10	--	4	--	5	--	7	--	5
Water and air craft	1	4	--	-----	--	-----	--	2	---	1	---	-----	---	-----	---	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Handling objects—by hand	5	2,263	--	216	--	59	--	50	1	364	---	175	---	30	4	956	--	53	1	89	--	22	1	85	--	29	--	76	--	36	--	43
Hand tools	1	989	--	85	--	22	--	18	---	199	---	180	---	18	1	297	--	19	--	13	--	18	--	17	--	12	--	39	--	6	--	9
Electricity	3	64	--	2	--	1	--	2	---	5	1	22	---	1	1	15	--	1	--	1	--	-----	--	2	--	-----	--	1	--	1	--	-----
Explosive substances	18	225	--	12	--	1	1	13	14	91	---	24	--2	5	1	46	--	11	--	12	--	2	--	4	--	-----	--	-----	--	6	--	-----
Hot and corrosive substances	5	325	--	37	--	9	--	3	---	10	---	12	---	3	4	184	--	9	--	15	1	5	--	13	--	9	--	5	--	4	--	6
Falling objects	46	1,554	--	68	1	18	4	33	20	533	18	489	--1	33	1	273	--	6	--	35	--	6	1	19	--	6	--	23	--	11	--	10
Falls of persons	16	1,729	2	234	2	56	--	30	1	206	1	94	---	24	5	536	--	45	--	40	--	23	--	69	--	21	--	37	--	25	1	42
Stepping upon or striking against objects	1	652	--	113	--	22	--	16	---	139	---	55	---	4	1	179	--	13	--	18	--	11	--	15	--	4	--	14	--	7	--	22
Miscellaneous	7	502	--	38	--	13	--	10	1	82	---	52	---	3	2	145	--	6	--	13	--	6	--	31	1	6	--	7	--	3	1	6

*F—Fatal. N F—Non-Fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING DECEMBER, 1927—(Concluded)

Cause	MANUFACTURING—Concluded																																									
			METALS AND METAL PRODUCTS																																							
	Total		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Retail		Wholesale		State and Municipal		Miscellaneous	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	19	1,904	3	67	5	321	1	382	6	695	4	295	--	144	1	56	10	441	2	154	6	234	--	114	6	602	--	123	4	287	4	518										
Working Machinery	1	283	--	3	--	30	1	70	--	145	--	28	--	7	--	22	--	1	--	2	--	10	--	6	--	25	--	4	--	3	1	27										
Boilers and Pressure Apparatus	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--										
Pumps and Prime Movers	--	2	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	5	--	--	--	--	--	--	--	1	--	2										
Transmission Apparatus	--	5	--	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--										
Elevators and Hoists	--	8	--	--	--	--	--	--	--	7	--	--	--	1	--	2	--	1	--	--	--	--	--	2	1	6	--	5	--	--	--	4										
Cranes and derricks	1	78	--	4	--	12	--	17	1	27	--	15	--	3	--	--	1	1	--	2	--	4	--	--	--	--	--	--	1	2	--	3										
Cars and engines	4	61	1	4	2	15	--	2	--	7	1	32	--	1	--	1	9	149	1	11	--	1	--	--	--	3	--	5	--	3	--	6										
Motor vehicles	--	92	--	--	--	5	--	6	--	24	--	1	--	56	--	2	--	6	--	48	2	18	--	1	3	95	--	17	1	75	--	79										
Other vehicles	--	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	6	--	1	--	21	--	4	--	9	--	17										
Hand trucks	--	39	--	--	--	12	--	11	--	12	--	4	--	--	--	4	--	18	--	2	--	2	--	1	--	7	--	3	--	1	--	5										
Water and air craft	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--										
Handling objects—by hand	2	511	--	19	--	90	--	118	2	195	--	65	--	24	--	12	--	89	--	17	--	44	--	34	--	146	--	33	--	39	--	111										
Hand tools	1	163	--	7	1	20	--	24	--	52	--	34	--	26	--	1	--	23	--	8	--	21	--	14	--	53	--	6	--	23	--	22										
Electricity	1	9	--	--	--	2	--	2	1	4	--	1	--	--	--	--	--	1	--	4	1	6	--	--	--	2	--	--	--	1	--	2										
Explosive substances	1	11	--	1	--	3	--	2	--	3	1	--	--	2	--	--	--	1	--	--	--	7	--	1	--	10	--	--	--	8	1	6										
Hot and corrosive substances	3	117	1	15	1	15	--	42	1	27	--	14	--	4	--	1	--	5	--	1	--	11	--	16	--	9	--	4	--	7	--	14										
Falling objects	--	154	--	6	--	42	--	31	--	51	--	23	--	1	--	3	--	14	1	8	--	11	--	3	--	30	--	3	--	16	--	22										
Falls of persons	5	229	1	7	1	47	--	33	1	75	2	55	--	12	--	5	--	90	--	35	3	61	--	25	--	139	--	24	1	61	--	114										
Stepping upon or striking against objects	--	73	--	1	--	12	--	12	--	33	--	10	--	5	1	2	--	17	--	6	--	13	--	4	--	41	--	9	--	11	--	23										
Miscellaneous	--	66	--	--	--	14	--	12	--	26	--	12	--	2	--	1	--	23	--	10	--	11	--	6	2	15	--	6	--	27	2	61										

*F.=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING 1927

Cause	Total of all Industries		CONSTRUCTION AND CONTRACTING						COAL MINING				Mining, Other Than Coal Mining, and Quarrying		MANUFACTURING																	
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous				Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber, and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	NF	F	NF	F	N F	F	N F	F	NF	F	N F	F	FN	F	FN	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF
Total of all causes,	2,064	158,690	91	10,936	83	4,241	61	3,854	502	26,817	389	23,267	45	2,402	400	56,363	35	2,555	35	4,510	7	1,782	35	5,027	4	1,072	23	4,076	4	2,488	18	2,759
Working machinery	60	12,401	--	336	--	203	2	154	3	376	7	1,051	1	100	43	9,247	1	130	8	307	1	701	4	412	2	371	5	1,071	--	704	6	831
Boilers and pressure apparatus	16	162	--	------	--	5	--	4	---	30	---	4	---	2	9	78	1	6	1	3	--	------	--	7	--	------	--	2	1	1	--	------
Pumps and prime movers	4	425	--	43	--	30	--	50	---	30	---	48	---	9	4	147	3	56	1	9	--	1	--	5	--	3	--	5	--	6	--	3
Transmission apparatus	14	473	--	8	--	12	--	14	5	111	1	108	1	11	6	180	--	15	--	21	--	8	1	15	1	4	1	13	1	15	--	16
Elevators and hoists	42	745	8	86	1	11	--	3	4	76	1	42	3	15	14	280	2	18	--	14	1	21	1	53	--	14	--	9	2	13	2	33
Cranes and derricks,	70	2,488	6	205	7	163	8	227	1	76	---	70	1	54	39	1,488	1	55	1	38	--	3	--	32	--	15	1	12	--	17	--	3
Cars and engines,	350	14,725	1	66	2	70	4	66	58	4,359	73	5,763	4	298	44	1,255	1	42	2	290	--	6	1	21	--	12	--	35	3	24	1	5
Motor vehicles,	145	6,943	5	432	12	385	8	231	---	36	1	47	---	79	29	2,226	5	157	1	77	2	39	9	478	--	33	1	118	1	123	--	38
Other vehicles,	16	1,262	--	32	--	33	1	77	---	25	---	23	1	16	1	424	--	23	--	15	--	1	1	223	--	3	--	119	--	13	--	6
Hand trucks,	7	2,372	--	128	1	47	--	88	---	24	---	15	---	9	3	1,516	--	58	--	279	--	15	--	134	--	62	--	61	1	95	--	74
Water and air craft,	19	106	--	------	1	7	6	42	---	2	2	13	---	4	---	14	--	3	--	------	--	------	--	1	--	------	--	------	--	------	--	5
Handling objects,	54	33,573	2	2,447	2	978	1	864	11	5,081	5	2,886	---	562	22	14,190	--	663	4	1,455	--	273	2	1,273	--	387	3	906	1	515	1	546
Hand tools,	25	15,138	5	1,050	1	415	1	383	2	2,897	1	2,664	1	326	11	4,928	--	246	--	248	--	171	--	395	--	161	--	569	--	108	--	146
Electricity,	94	1,024	--	23	14	18	--	10	7	153	20	290	3	9	13	278	2	10	3	22	--	4	2	8	--	6	--	5	--	12	--	3
Explosive substances,	213	2,045	1	65	1	50	4	60	112	770	26	262	12	42	30	474	9	101	8	65	--	10	1	30	--	6	1	5	1	55	--	5
Hot and corrosive substances,	35	4,944	2	424	1	158	1	90	---	179	---	186	1	32	21	2,946	1	232	2	182	1	34	1	194	--	93	--	29	1	69	--	113
Falling objects,	579	21,345	8	954	12	370	12	477	265	6,820	243	6,899	11	441	21	4,092	1	165	1	410	--	45	1	221	--	81	8	317	--	136	--	107
Falls of persons,	221	21,221	48	2,649	23	731	11	543	15	2,628	4	1,320	4	243	65	6,988	7	482	3	560	2	261	7	932	--	222	2	469	2	363	3	445
Stepping upon or striking against objects,	17	10,742	--	1,664	1	387	--	327	2	1,959	1	858	---	77	9	3,573	--	177	--	363	--	144	1	343	--	138	1	227	--	172	--	296
Miscellaneous,	83	6,556	5	326	4	168	2	144	17	1,185	4	718	2	73	16	2,020	1	116	--	182	--	45	3	200	1	61	--	104	--	47	5	84

*F—Fatal. **N F—Non-Fatal.**

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING 1927—(Concluded)

Cause	MANUFACTURING—Concluded																																									
	METALS AND METAL PRODUCTS																																									
	Total			Blast Furnaces and Steel Works			Rolling Mills			Foundries and Machine Shops			Fabrication			Car Repair Shops			Automobile Service Stations			Other			TRANSORTATION AND PUBLIC UTILITIES: Steam Railroads			TRANSORTATION AND PUBLIC UTILITIES: Other Transportation			TRANSORTATION AND PUBLIC UTILITIES: Public Utilities			OTHER INDUSTRIES: Hotels and Restaurants			OTHER INDUSTRIES: TRADING: Retail			OTHER INDUSTRIES: TRADING: Wholesale			OTHER INDUSTRIES: State and Municipal			OTHER INDUSTRIES: Miscellaneous		
*	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F
Total of all causes	225	30,319		33	1,419		71	5,350		25	5,722		58	11,550		26	4,228		12	2,050		4	945		171	7,595		33	1,997		69	2,820		10	1,425		49	6,287		11	1,475		92	3,383		58	5,828	
Working machinery	16	4,395		--	65		10	590		3	946		3	2,415		--	290		--	89		--	325		--	26		--	10		2	67		--	79		--	249		--	41		--	52		2	410	
Boilers and pressure apparatus	6	59		1	4		4	8		--	11		1	20		--	14		--	2		--	-----		4	17		1	1		--	6		1	1		--	3		--	1		--	6		1	4	
Pumps and prime movers	--	59		--	3		--	14		--	7		--	28		--	5		--	2		--	-----		--	5		--	2		--	21		--	-----		--	10		--	-----		--	14		--	16	
Transmission apparatus	2	70		--	8		1	14		1	17		--	24		--	5		--	2		--	3		--	-----		1	-----		--	5		--	-----		--	7		--	-----		--	3		--	14	
Elevators and hoists	5	93		--	3		1	9		1	16		3	49		--	4		--	12		1	12		--	4		--	2		--	7		3	31		4	80		--	38		--	4		4	66	
Cranes and derricks	36	1,311		6	101		8	334		5	306		13	415		4	136		--	19		--	2		3	57		--	17		--	38		--	2		1	24		--	4		2	19		2	46	
Cars and engines	36	809		10	68		14	134		1	43		3	112		7	446		1	6		--	11		150	2,485		10	170		--	36		1	1		2	58		--	30		1	23		--	45	
Motor vehicles	10	1,142		--	5		1	40		--	46		4	249		--	45		5	759		--	21		3	97		9	560		9	203		--	12		14	907		4	210		35	738		16	780	
Other vehicles	--	17		--	1		--	3		--	5		--	6		--	1		--	1		--	4		--	3		--	9		--	101		--	3		2	165		--	15		7	153		4	183	
Hand trucks	2	718		--	29		--	163		1	145		1	297		--	80		--	4		--	20		--	293		1	40		--	26		--	4		--	65		--	57		1	9		1	51	
Water and air craft	--	5		--	1		--	2		--	-----		--	2		--	-----		--	-----		--	-----		1	6		6	14		--	1		--	-----		--	-----		1	-----		1	-----		1	3	
Handling objects	11	7,941		--	290		2	1,493		1	1,684		7	3,229		1	941		--	304		--	240		1	1,482		1	363		--	549		1	381		3	1,566		--	494		3	457		2	1,264	
Hand tools	11	2,847		2	135		3	417		2	406		2	913		2	634		--	342		--	37		--	620		--	114		--	316		--	176		1	552		--	63		2	287		--	347	
Electricity	6	202		1	5		--	38		1	25		4	104		--	25		--	5		--	6		2	7		1	58		30	134		--	3		1	17		--	2		2	3		1	19	
Explosive substances	9	194		2	19		3	28		2	37		2	63		--	[illegible]		--	39		1	3		--	20		--	13		16	58		--	20		4	81		1	2		3	67		3	61	
Hot and corrosive substances	15	1,967		3	258		2	323		--	661		3	467		4	180		3	78		--	33		--	132		--	25		--	107		1	200		1	125		1	21		3	117		3	202	
Falling objects	10	2,576		1	136		4	592		2	473		2	976		1	353		--	46		--	34		1	249		1	79		1	175		--	31		1	306		1	60		--	140		2	252	
Falls of persons	38	3,148		6	175		14	644		2	376		8	1,038		6	736		2	179		1	106		5	1,337		2	307		11	636		1	335		9	1,320		3	266		15	719		5	1,199	
Stepping upon or striking against objects	6	1,648		1	69		1	303		1	314		1	688		1	180		1	94		1	65		--	346		--	89		--	183		--	96		1	503		--	120		2	186		1	374	
Miscellaneous	6	1,118		--	44		3	201		2	204		1	455		--	147		--	67		--	23		1	409		--	124		--	151		2	50		5	249		--	51		15	386		10	492	

*F=Fatal. N. F.=Non-fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1923			1924			1925			1926			1927		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	223	16,710	16,933	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667
February	221	15,276	15,497	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285
	444	*31,986*	*32,430*	*414*	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*
March	222	15,653	15,875	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	163	14,332	14,495
	666	*47,639*	*48,305*	*626*	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*
April	196	16,689	16,885	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862
	862	*64,328*	*65,190*	*777*	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*
May	226	17,384	17,610	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042
	1,088	*81,712*	*82,800*	*934*	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*
June	188	17,433	17,621	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627
	1,276	*99,145*	*100,421*	*1,109*	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*
July	221	17,749	17,970	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724
	1,497	*116,894*	*118,391*	*1,294*	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*
August	216	18,452	18,668	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832
	1,713	*135,346*	*137,059*	*1,481*	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*
September	173	15,504	15,677	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442
	1,886	*150,850*	*152,736*	*1,648*	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,556*	*120,420*	*121,976*
October	207	17,380	17,587	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727
	2,093	*168,230*	*170,323*	*1,828*	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*
November	163	15,532	15,695	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280
	2,256	*183,762*	*186,018*	*2,022*	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*
December	156	14,261	14,417	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	152	11,619	11,771
Totals	*2,412*	*198,023*	*200,435*	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

PENNSYLVANIA SAFETY CONGRESS

The Department of Labor and Industry has each year held a State-wide Safety Conference for the purpose of stimulating interest in accident-prevention work among the industries and for the development of ways and means for reducing the accidents.

This year the Department of Labor and Industry is cooperating with the Departments of Mines, Highways, Public Instruction, Health, State Police, and the Public Service Commission in holding a Pennsylvania Safety Congress at the Bellevue-Stratford Hotel, Philadelphia, March 21, 22, 23. This Congress will have for its consideration the entire field of accident-prevention work. This is the first time that all of the departments of the State Government that are interested one way or another in accident-prevention work have been banded together in a determined effort to make Pennsylvania a safer place in which to live.

The conference will open on the morning of March 21st, to give everyone an uninterrupted opportunity to visit the Safety Exhibit on the first floor of the Bellevue-Stratford Hotel. The afternoon session will be a general meeting of all the groups taking part in the conference. The accident record of the Commonwealth will be discussed and the general plan of the conference outlined.

The second day of the conference and the morning of the third day will be devoted to sectional meetings for discussion of the various phases of industrial, mine, public and home safety; and for the teaching of safety in the schools. At the closing session of the conference the findings of the Congress will be summarized, so that everyone may go home with a definite plan in mind as to methods to be followed for the reduction of accidents.

The Commonwealth of Pennsylvania invites all persons interested in accident-prevention work, whether they reside in Pennsylvania or not, to attend this Congress and take an active part in its deliberations.

SAFETY EXHIBIT FEATURE OF PENNSYLVANIA SAFETY CONGRESS

The demand for booths at the safety exhibit of the Pennsylvania Safety Congress at the Bellevue-Stratford, Philadelphia, March 21, 22, and 23 has been so great that it has been necessary to secure additional space. Manufacturers and distributors of safety devices and appliances will be the principle exhibitors.

The exhibit will include appliances for safety on the highways;

the latest development in first-aid equipment; fire-protection and fire-fighting apparatus; emergency lighting equipment; the latest developments in scaffolds, ladders, and other equipment used in the building industry; the best types of elevators and other hoisting equipment; safety devices that can be used on boilers; and mine safety equipment.

The exhibit promises to be one of the most complete and comprehensive that has ever been held in the eastern section of the United States.

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PENNSYLVANIA'S EFFORTS TO AID HANDICAPPED PERSONS

By Charles A. Waters

Secretary of Labor and Industry

The Commonwealth of Pennsylvania is expending in benefactions for the care of the sick and indigent, for persons mentally and physically disabled, and for other general charitable purposes, approximately $28,000,000 during the present fiscal two-year period which ends May 31, 1929. Those expenditures are virtually in all cases direct appropriations from current revenue. The amount includes only allotments for the disabled and indigent and does not include appropriations for general elementary or higher educational institutions, Soldiers' Orphans' Homes and other similar appropriations.

Comprising the $28,000,000 are items of $7,595,800 for ten State-owned and 159 State-aided hospitals; $2,325,000 for the maintenance of three tuberculosis sanatoria, clinics and field nurses; $1,070,000 for the education of the deaf and blind in State-aided institutions and for the higher education of persons so disabled; $215,000 for State-owned institutions for the deaf; $117,000 for education and training of the blind; $600,000 for the erection of a hospital for crippled children; $55,000 for orthopedic clinics for crippled children; $15,877,800 for the care of the insane, mentally defective, indigent adults and children and for the Mothers' Assistance Fund; $80,000 for vocational rehabilitation.

In addition to those subsidies of the Commonwealth, large sums are expended within the separate counties, municipalities and other governmental units from both public and private funds for the relief and care of the indigent and disabled.

With the increase of population, concentrating in cities, with constant industrial expansion, with the advent of the automobile and wider utilization of the highway systems, the tendency to disabilities through accidents and other causes, demands, apparently, ever-increasing finances and changing methods on the part of public and private relief agencies. Cooperative relationship between public and private agencies working toward the same result is of course desirable to prevent duplication of actions and expenditures as well as for mutual assistance and for the proper and logical development and promotion of those public relief agencies which should have the support of private organizations.

Pennsylvania, with its natural resources, is a Commonwealth in which are developed to a very great degree, the types of industry most hazardous to the workers. The operation of coal mines, steel mills, extensive transportation and public utility systems, in addition to general manufacturing, to the extent that prevails in Pennsylvania today, is attended by many accidents resulting in injuries to employes despite constant efforts for safety.

In the Pennsylvania Department of Labor and Industry is the workmen's compensation system which supervises the distribution of workmen's compensation payments, from employers or their insurance carriers, to the workers disabled by industrial employment accidents and to dependents of workers killed in industry. The numbers of workers permanently disabled by such accidents drew attention, a few years ago, to the economic as well as the humanitarian need for returning such persons to some type of suitable employment. A physically handicapped person fitted into a suitable job contributes to the production of the Commonwealth as a whole and at the same time is removed from the ranks dependent for maintenance upon relatives or public funds.

BUREAU OF REHABILITATION ESTABLISHED

In 1919 a Bureau of Rehabilitation was created in the Department of Labor and Industry for the purpose of aiding permanently disabled industrial workers to return to suitable employment. Such result was to be accomplished, usually in the home community of the disabled person, by representatives of the Bureau traveling throughout the Commonwealth. The Bureau was empowered to provide necessary artificial appliances as arms, legs, and braces for persons unable to purchase them; and when such appliances were necessary to enable the disabled person to return to an occupation. The Bureau was also empowered to provide training in the general plan of vocational readjustment of accident victims.

In 1920, the Federal Government passed a Rehabilitation Assistance Act and has since that time appropriated, annually, $1,000,000 available to the States, accepting the Federal funds, on the ratio of the population of each State to the population of the entire country. A further provision was that for each dollar of Federal money expended a dollar of State money should be expended for the same purpose. Pennsylvania is expending through the Bureau of Rehabilitation approximately $40,000 a year of State money and $35,000 of Federal money. The difference represents generally the amount expended from State funds for living maintenance of industrial accident victims in training and which money is not matchable from Federal funds. The Federal funds may be matched solely for ad-

ministration, pure training costs, and artificial appliances. Approximately, forty States have accepted the Federal funds for rehabilitation and consequently, the movement to return disabled persons to suitable employment is to that extent nation-wide. The Pennsylvania Bureau of Rehabilitation returns, on an average, 450 permanently disabled persons to suitable employment each year. Many are trained for the tasks in which they are ultimately entered. Training of an ambitious character is possible in less than ten per cent of the total number of persons registered with the Rehabilitation Bureau of Pennsylvania. That is due, in part, to the fact that almost twenty per cent of the total number of persons registered with the Pennsylvania Bureau of Rehabilitation are illiterate in English and approximately only eleven per cent of the total number of registrants are under twenty-one years of age.

Rehabilitation is essentially case work. Disabled persons cannot come to the offices of the Bureau. Field workers of the Bureau must carry the services to the disabled persons, wherever located throughout the State, and there endeavor to formulate a program for returning to a suitable job, each disabled person, susceptible to rehabilitation. In many cases, lack of elementary education, economic pressure, heavy domestic responsibilities and other similar factors make necessary the finding of a suitable job for immediate placement of the handicapped person in remunerative employment. From such placement procedure the activities of the Bureau of Rehabilitation range to training in manual trades as shoe repairing, showcard writing, mechanical dentistry, barbering, watch repair, and similar pursuits and, in the more advanced cases, to training in colleges for engineering, teaching, law, pharmacy, medicine, dentistry, and commerce and finance.

Training may be under employment conditions as, for example, a youth with one foot amputated is entered to work in a bakery with instruction from his foreman and finally becomes proficient in his trade. Another form of training may be tutorial instruction as a young man confined to a wheel chair by spinal injury is taught by a visiting tutor to repair clocks, and when finally trained, receives such work from a number of jewelry stores in his home city.

Correspondence courses are provided usually to supplement daily employment. A handicapped man is aided in his poultry or orchardry venture by an extension or correspondence course from The Pennsylvania State College. A young man with both feet amputated is placed in an office of a corporation and provided with a correspondence course in general business forms and practices.

Commercial schools are utilized. Younger disabled persons are encouraged to complete high school educations where feasible. In

other institutions young disabled persons are entered to learn watch repairing and engraving, mechanical dentistry, and even embalming.

The most spectacular cases are those of young men and women physically handicapped who nevertheless complete successfully professional courses for the teaching and other professions.

Among the higher educationl institutions attended by disabled persons assisted financially by the Bureau of Rehabilitation are: The Pennsylvania State College, University of Pennsylvania, University of Pittsburgh, Duquesne University, Lehigh University, Lafayette College, Villanova College, Temple University, Franklin and Marshall College, Geneva College, Dickinson College, Dickinson Law School, Philadelphia College of Pharmacy, and a number of the State Teachers Colleges.

The financial aid for a disabled trainee of the Bureau of Rehabilitation may not exceed $15 a week and is determined in each individual case by the amount by which the weekly expenses of a trainee exceed the weekly income. The income in any case is usually the weekly workmen's compensation payment, which is supplemented by the payments from the Bureau of Rehabilitation to make possible the training course.

COOPERATION ESSENTIAL

The field worker from the Bureau of Rehabilitation endeavoring to develop a rehabilitation program in the home community of a disabled person needs not only the definite and active cooperation of employers, employes, and labor organizations, but also in many cases the assistance of local public and private philanthropic agencies.

Although the work of the Bureau of Rehabilitation is to include only those types of disabled persons susceptible to rehabilitation, not requiring permanent custodial care and who have gone through the period of convalescence to the point of being able to return to work, the Bureau in many cases arranges with hospitals and public spirited physicians for observation and treatment of disabled registrants needing such attention.

Philanthropic agencies frequently cooperate in many ways with the Bureau of Rehabilitation in specific cases. In fact, exclusive of general support and promotion of the rehabilitation principle, the best cooperation from allied agencies can come to the Bureau of Rehabilitation as assistance in working out the problems presented in individual cases.

For example, a disabled person may desire training, and be a suitable prospect for training for employment, but the problem of maintaining such person,—providing food, shelter and clothing,—during a training period may make it impossible for the Bureau

to arrange for training unless financial assistance for such maintenance is available from some other source, usually a philanthropic organization.

The Bureau of Rehabilitation may pay living maintenance, under the law, only for industrial employment accident victims. Even in such cases the weekly training costs combined with living costs occasionally exceed the $15 weekly maximum permitted from Rehabiliation funds and in some cases the workmen's compensation award may be exhausted before a training program is instituted. Living maintenance may not be paid from Rehabilitation funds during training of persons whose disabilities are not the result of industrial accident. Actual training costs, tuition and supplies, may be paid for such cases under the acceptance of Federal Rehabilitation funds by the Commonwealth. The need for living maintenance in such cases is frequently a serious obstacle to be overcome before training programs can be planned for persons disabled by congenital defect, disease, or public accident.

An excellent method of cooperation by any agency with the Bureau of Rehabilitation is to investigate with Bureau individual cases for the purpose of providing living maintenance, when necessary, so that the training may be pursued by the disabled person and brought to a successful conclusion with the trainee ultimately in suitable employment on a self-supporting basis.

In some cases, the Bureau's representatives appeal to charitable organizations in the local community of the disabled person when conditions make such appeal necessary.

There are, however, constantly before the Bureau cases where training could be provided if the maintenance problem could be solved. Such solution has been possible in some instances by the financial cooperation of organizations capable and willing to give such support.

Rehabilitation work of the character I have described has, in a measure, been conducted in the past by various relief agencies and by many forward looking employers. However, considering the population of the entire country and the numbers of disabled persons who by proper training can be made self-supporting it is a safe statement that rehabilitation is only in its infancy. A vast work remains to be done and it is hoped that, by cooperation and mutual assistance of all interested public and private agencies, plans will develop gradually for a more effective coping with the entire situation.

SAFETY EDUCATION*

By Josephine Grainger

Supervisor Elementary Education

Allentown Public Schools

Lowell, in writing of the government of his time, said,

"New occasions teach new duties,
Time makes ancient good uncouth."

Quite as true of education today is this sentiment. Materials of instruction which it would have been very safe to leave out of the course of study several decades ago, must, by virtue of changing conditions, be included today. On the other hand, materials which were then considered essential to elementary education, may be omitted today in order to provide place for newer needs.

Safety education in the elementary schools is a subject of instruction not needed in the schools of twenty or thirty years ago, but absolutely vital to the welfare of children to be educated today.

In the schools of Allentown there is a regular weekly period set apart for safety instruction. In grades one to four the weekly period is devoted to safety games, stories, songs, poems, and trips for the purpose of observation. In grades five and six there is added to the habit-forming activities of the lower grades, responsibility for the safety of others. The safety council meetings in these grades provide opportunity for pupils to share the responsibility of conducting meetings and of discussing safety measures.

The children with the aid of their teachers elect officers for the safety councils and plan the weekly meetings. It is good often to renew one's allegiance to a cause, so the pledge to care for one's own safety and the safety of others occupies the first place in a safety council meetings. This is followed by the main part of the meeting, which we attempt to keep constructive in character and to correlate whenever possible, with the other subjects of instruction. It may consist of safety songs, plays, and activities similar to those of the lower grades, reports of accidents with special emphasis upon ways in which the accidents might have been avoided; and in the sixth grade, where work in civics is industrial in character, studies of dangers in various industries and ways in which these dangers may be overcome.

*Delivered at Safety Conference, Allentown, Pa., Dec. 6, 1927.

Learning how to safely get from home to school and return is taught to the children during their first year at school by means of a traffic game. The traffic officer stands in the center and directs the passing of the children in each direction with his sign, in as nearly as possible the same fashion as the traffic officer at the street corners. At times the children play this game in the corridors or on the playgrounds and use carts and bicycles, thus introducing the vehicular problem into their game.

More advanced teachers believe that greater learning results are obtained from activities in which children and teachers do things together than by merely talking about things. Instead of merely staying in school, whenever it is possible, we take groups of children out where they may actually observe the things to be discussed.

For instance a trip is made by first-grade classes to the traffic signal at the intersection of streets. Upon returning to school the children write a report of the trip, and make drawings of the things they saw. This impresses on their minds the lessons taught by observation of the operation of the traffic signal.

Instead of beginning practice in penmanship by writing words wholly unrelated to their experiences, the more advanced teacher uses the children's interests and permits practice upon words in which they are greatly concerned. I wish we could reproduce a child's penmanship lesson on the safety words—"red, stop; amber, caution; and green, go." As all too frequently happens at street intersections, the go got rather badly mixed in with the caution.

In any education the more contacts one has the greater is the likelihood of getting the desired instruction and the greater the chance of its being recalled when needed. The making of posters to promote safety education in our schools is a very important part of the work. For instance, one child drew a picture of two children playing marbles in the middle of the street and an automobile approaching from the rear. The lettering at the bottom of the poster says,—"Streets are not playgrounds" and explains the purpose of the poster.

Another poster is divided into two parts, the first marked, "before" shows a child crossing a railroad track in front of an approaching freight car, and the second part marked, "after" shows the child walking on after crossing the tracks, but leaves his leg lying on the tracks to show what may happen if this dangerous practice is followed.

A correlation between a study of geography and safety is very readily made. For instance, the children with the help of the teacher constructed on the blackboard a map of the district of the city in which the school is located. Later they transferred it to paper for

future reference. On the map they noted the streets in the neighborhood of the school, the location of their homes, and the various dangerous places encountered in passing from home to school.

Reasons were developed explaining why we should use certain routes in going to and returning from school, avoiding if possible the dangerous crossings and the unprotected intersection. Such a lesson could not but make children conscious of their neighborhood and of the best reactions for them to make to it.

Present-day life with its lack of activities relative to the production and preparation of materials for food, clothing, and shelter, in the home is likely to result in very narrow experiences for children. The school must provide situations which will acquaint children with the processes carried on in the preparation of materials for their use, so that they may the better appreciate the contributions others have made for their welfare.

Visits to industries help to give the children many experiences of an educative nature. They are able also to observe the dangers associated with different kinds of work and to note the safeguards which manufacturers have erected to lessen these dangers.

The safety patrol, which is an important part of each school, cares for the safety at street intersections of children going to and returning from school. In addition, the officers of the patrol bring their problems before the safety councils at their weekly meetings, present reports, and ask for the advice of the entire council.

Of the many and varied phases of safety education, this article touches upon only a few. It is encouraging to those of us who are interested in safety education to realize that it is receiving a definite place in elementary schools, and that courses in teaching it are finding place in teacher training schools and colleges.

We, in Allentown, are deeply indebted to Major Reninger and the National Safety Council for inspiration and help in planning and carrying out our program of safety education during the past seven years.

THE SECOND YEAR'S ADMINISTRATION OF THE PENNSYLVANIA HOME WORK REGULATIONS

PREPARED BY

Bureau of Women and Children

Charlotte E. Carr, Director

November 1, 1927, marked the close of the second year's administration of Pennsylvania's Industrial Home Work Regulations. The first year's efforts were directed mainly towards the licensing of home work employers and the developing with them of methods for maintaining legal standards in the homes where their work was being done. While a considerable part of the second year has had to be spent in making first contacts with new employers, there has nevertheless been an opportunity to go further than the initial educational work and to proceed with an active program of inspection. The emphasis has definitely been shifted from an investigation of the extent of Pennsylvania's home work problem to an inspection of homes in those localities, and for those industries where the probability of violation of the home work regulations has been found to be greatest.

Licensed Employers

The second year has increased by more than a quarter the number of employers licensed. On November 1, 1927 there were 1,161* active home work licenses.

This represents an increase of 251 over the number of licenses in effect November 1, 1926.

In addition to the 1,161 active licenses, 148 have been cancelled. A change in business conditions or a reorganization in the factory has been the employers' chief reason for the discontinuance of home work.

TABLE 1. CANCELLED HOME WORK LICENSES BY REASON FOR CANCELLATION

Reason for Cancellation	Number	Per cent
Change of owneship or firm out of business	60	40.5
Discontinued giving out home work	59	39.9
Firm moved out of state	14	9.5
Miscellaneous reasons	15	10.1
Total	148	100.0

*Includes 31 duplicate licenses issued to branch factories.

Home Workers

Although there has been a material increase in the number of employers licensed during this second year, there has not been a proportional increase in the number of home workers. According to the employers' home work reports there were 12,659 home workers listed in September 1927, as contrasted with 11,883 for the same period in 1926, an increase of only 776 workers, or seven per cent, in the second year.

This proportionately slight increase in the number of home workers is probably explained by the fact that most of the firms employing large numbers of home workers were reached and licensed during the first year of administration. Of the 20 firms listing 100 or more home workers in September 1927, all but two were licensed during the first year.

Table 2 classifies the licensed employers according to the number of home workers reported in September 1927. More than one-half of the establishments employed less than 10 workers and three-fourths employed less than 25 workers.

TABLE 2. LICENSED EMPLOYERS BY NUMBER OF HOME WORKERS

Number of Home Workers	Licensed Employers	
	Number	Per cent
1 and less than 5	447	38.5
5 and less than 10	225	19.4
10 and less than 25	207	17.8
25 and less than 50	50	4.3
50 and less than 100	23	2.0
100 and less than 200	15	1.3
200 and less than 500	4	.3
500 and over	1	.1
No home workers	189*	16.3
Total	1,161	100.0

Industries

No industry has had in the second year an outstanding shift in the proportion either of workers or of licensed employers. The needle trades made up of all clothing industries, knit goods, and art needlework, continue to include more than two-thirds of both home workers and licensed employers. The men's clothing industry remains the most important single home working industry including 27 per cent of all licensed employers and 23 per cent of the total number of home workers. Only seven per cent of the home workers

*These employers had no home workers employed when the September, 1927, report was made.

are employed in the next most important industry, tobacco, which includes, however, 17 per cent of the licensed employers. Table 3 classifies all licensed employers and home workers by industry.

TABLE 3. LICENSED EMPLOYERS AND HOME WORKERS BY INDUSTRY

Industry	Licensed Employers		*Home Workers	
	Number	Per cent	Number	Per cent
Art needlework	73	6.3	1,157	9.1
Art needlework	38	3.3	497	3.9
Curtains and draperies	23	2.0	523	4.1
Handwork by the blind	4	.3	66	.5
Lamp shades	8	.7	71	.6
Clothing, men's	317	27.3	2,962	23.4
Clothing, miscellaneous	136	11.7	1,110	8.8
Gloves, handkerchiefs, neckwear	21	1.8	336	2.6
Shirts, nightwear, overalls	96	8.3	710	5.6
Footwear	7	.6	22	.2
Hats and caps	12	1.0	42	.3
Clothing, women's and children's	63	5.4	1,492	11.8
Knit goods	211	18.2	2,229	17.6
Underwear	65	5.6	656	5.2
Hosiery	110	9.5	490	3.9
Sweaters	27	2.3	345	2.7
Hand knit dresses and sweaters	9	.8	738	5.8
Novelties and toys	30	2.6	845	6.7
Artificial flowers and feathers	9	.8	87	.7
Novelties, toys and flags	21	1.8	758	6.0
Tags	7	.6	416	3.3
Tobacco	193	16.6	900	7.1
Miscellaneous	131	11.3	1,548	12.2
Boxes, wooden and paper	41	3.5	161	1.3
Food products	3	.3	35	.3
Garters, braid and ribbons	5	.4	49	.4
Gold leaf	4	.3	120	.9
Hair goods	6	.5	11	.1
Leather goods	2	.2	44	.3
Medical and surgical supplies	2	.2	19	.2
Metal products	8	.7	177	1.4
Rugs and carpets	11	.9	346	2.7
Silk and woolen goods	16	1.4	26	.2
Snaps, hooks, buttons and pins	4	.3	249	2.0
Towels, lace and embroidery	11	.9	250	2.0
Umbrellas	7	.6	53	.4
†Other	11	.9	8	.1
Total	1,161	100.0	12,659	100.0

*Based on home work reports of September, 1927.
†Includes gilding cards, addressing envelopes, caning chairs, sewing on window shades, pillows, and cushions, trimmings, and goggles.

Geographical Distribution of Home Work

Philadelphia is the center of the home work industry in the state, Philadelphia city alone having 40 per cent of the licensed employers and 45 per cent of the home workers. In the Philadelphia district,

which includes the four surrounding counties in addition to Philadelphia city, are found nearly one-half of all licensed employers and 60 per cent of the home workers. In the Lancaster district, where tobacco constitutes the most important home work industry, there are 37 per cent of the home work employers but only 25 per cent of the home workers. Table 4 shows the distribution of licensed employers and home workers by location.

TABLE 4. LICENSED EMPLOYERS AND HOME WORKERS BY LOCATION

Location	Licensed Employers		Home Workers	
	Number	Per cent	Number	Per cent
Philadelphia district	561	48.3	7,624	60.2
Philadelphia city	464	40.0	5,694	45.0
Outside of Philadelphia city	97	8.3	1,930	15.2
Lancaster district	431	37.1	3,151	24.9
Other districts	161	13.9	1,531	12.1
Outside of state	8*	.7	353	2.8
Total	1,161	100.0	12,659	100.0

Enforcement of Home Work Regulations

There has been no change in the basic methods of administration of the home work regulations which include: first, a personal interview with each employer to explain the regulations and to assist him in organizing his work to comply with them; and second, an investigation of a representative number of his homes to ascertain whether or not the work is being done under legal conditions. But the second year's investigation of homes has been carried on with the advantage of a more specific knowledge of home work conditions so that those homes have been selected where the likelihood of violation seemed greatest.

In 1924 before the home work regulations had been adopted an investigation of an unselected group of 1,243 home working families, with children under 16, showed just 50 per cent permitting children to be employed illegally on home work processes. In 1926 with the home work regulations in effect an investigation of an unselected group of 1,202 home working families, with children under 16, showed 24 per cent permitting children to be employed illegally, an encouraging improvement. It would have been most informing to have attempted a comparable investigation for a third period. But with specific employers and specific homes actual suspects as violators

*In addition, there are 52 out-of-state firms which distribute home work through Pennsylvania agents.

of the Child Labor Law it would have been quite untenable to have continued an impartial investigation at the sacrifice of a definite inspection to check illegal employment.

The 1927 investigations, however, have shown a very slight increase in the proportion of violations found. In 1,230 home working families, with children under 16, visited for the first time, violations of the Child Labor Law were reported in 308 or in 25 per cent of the homes. There has been, on the other hand, a decided difference this year in the proportion of violations found in the various industries. Novelties and tags were the industries with the most appreciable increase in violations and women's and children's clothing the industry with the most outstanding decrease. The slackening up of work on cheap embroideries in 1927, an operation in which a number of Child Labor violations were found in 1926, accounts in part for the reduction of violations found in the women's and children's clothing industry in 1927. A change in business conditions, therefore, as well as a change in the method of selecting homes for investigation necessarily enters into any comparison of violations found from year to year with these facts in mind the proportion of violations reported for the various industries is still of interest. These figures are offered in Table 5.

TABLE 5. HOMES WITH CHILDREN: PROPORTION WITH VIOLATION OF THE CHILD LABOR LAW BY INDUSTRY AND YEAR

Industry	Homes with Children					
	1924[1]		1926[2]		1927	
	Number Investigated	Per cent with violation of Child Labor Law	Number Investigated	Per cent with violation of Child Labor Law	Number Investigated	Per cent with violation of Child Labor Law
Art needlework	*	*	78	5.1	40	15.0
Clothing, men's	568	44.3	306	25.8	284	34.9
Clothing, miscellaneous,	*	*	76	6.6	90	4.4
Clothing, women's and children's	145	50.3	84	27.4	52	5.8
Knit goods	212	29.2	144	17.4	184	13.6
Novelties and toys	*	*	77	16.9	132	35.0
Tags	184	90.8	111	41.4	86	57.0
Tobacco	*	*	94	19.1	213	11.3
Miscellaneous	134	50.0	232	30.2	149	34.2
Total	1,243	50.0	1,202	23.5	1,230	25.0

*Figures for this industry were not available for 1924.

[1] "Industrial Home Work and Child Labor," Special Bulletin No. 11, Pennsylvania Department of Labor and Industry.

[2] "The First Year's Administration of Industrial Home Work Regulations," in Labor and Industry, March, 1927.

Whatever the cause of the variation in the proportion of violations, the number found cannot be passed over lightly and the situation, particularly in certain industries, demands a specific program of law observance on the part of the home work employers if home work is to be done in accordance with the regulations of the Commonwealth.

As in the first year's administration of the home work regulations, the Woman's Law was found to be violated less frequently than the Child Labor Law. The second year showed a decrease over the preceding year in the number of violations of the Woman's Law. In nine per cent of the 1,688 homes in which women were working, hours of work were found to be in violation of the provisions of the Woman's Law. In 1926, similar violations were found in 14 per cent of the homes visited.

Reinvestigations

There were 2,277 visits made to homes during the second year, of which 173 were revisits, made necessary because of violations found at the time of the first visit. Figures representing a change in the situation as noted on a second or third visit are given with this caution: It becomes increasingly difficult for investigators making revisits to detect actual violations of the regulations. The situation may have been corrected or again an appearance of complying with the law may have been created by the home worker so that a violation was not detected as before. Table 6 shows the results of 173 revisits to homes where violations had been discovered at the time of the first visit.

TABLE 6. REINVESTIGATIONS OF HOMES WHERE VIOLATIONS HAD BEEN FOUND ON PREVIOUS VISITS, BY TYPE OF VIOLATION AND STATUS OF WORK IN HOME AT TIME OF REVISIT

Status of Work in Home	Total Reinvestigations*		Type of Violation					
			Child Labor		Woman's Labor		Sanitation	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
No violation	92	46.0	66	42.0	23	63.9	3	42.8
Violation continued	77	38.5	64	40.8	11	30.5	2	28.6
Home work discontinued	31	15.5	27	17.2	2	5.6	2	28.6
Total reinvestigations	200	100.0	157	100.0	36	100.0	7	100.0

*The 200 reinvestigations cover 173 visits to 153 homes. Where revisits were made for more than one type of violation the revisit is counted under each type of violation.

Of the 157 cases where revisits were made because of violations of the Child Labor Law, the violation had been corrected in 42 per cent of the cases, in 41 per cent children were still working in violation of the law, and in 17 per cent home work had been discontinued. For the violation of the Woman's Law the results were a little better. In two-thirds of the homes revisited the violations had been corrected.

Action Taken in Cases of Continued Violation

For cases of chronic violation of the home work regulations, it has been necessary to develop some more effective means of enforcement. It seemed that the only cure for chronic violation in homes was to take the work away. The Bureau of Women and Children, therefore, has requested employers to discontinue giving home work to persons who continued to violate the regulations after they had been duly warned. In the period between August 1, 1926 and November 1, 1927 such requests were made of 29 employers in cases of violations involving 133 homes. This action has proved to have a healthy effect on the whole neighborhood. The discontinuance of home work was not necessarily final, although in many cases it has been so. In some instances, where an agreement was made that satisfied the Bureau and the employer that the law would be complied with in the future, the work was reinstated. Not infrequently the employers have supplemented the Bureau's orders by taking away work on their own accord, as a warning to home workers that the law must be upheld.

Conclusion

The adoption of the Industrial Home Work Regulations by the Department of Labor and Industry in June 1925 was only the initial step in the regulation of the conditions of work for industrial home workers. The difficult task of working out methods of enforcement devolved upon the Bureau of Women and Children.

In the beginning the basic program was educational. The employers were informed of the regulations and their cooperation generally secured in instructing their home workers regarding the regulations. Experience has shown that certain situations arise which require active enforcement methods. The most effective has been the removal of work from homes where the home worker persisted in violating the law.

Two years' efforts in the administration of the Industrial Home Work Regulations have not solved the home work problem. The Bureau of Women and Children is able, however, to define its task as never before. It is now known what industries and occupations, what employers, and what localities have the most acute child labor problem and which are the more effective methods of preventing violations.

INDUSTRIAL BOARD

The following new regulations were approved by the Industrial Board at a meeting held February 15, 1928.

REGULATIONS

1. Affecting Batteries Used with Emergency Lighting Systems.

> "The use of the batteries of emergency lighting systems as the source of energy for other apparatus such as fire alarm systems is prohibited, except that such batteries may be used as the source of energy for the supervisory devices of approved fire alarm systems."

2. Rule approved April 25, 1925, Regulating the Employment of Minors in Quarries, amended to read:

> "The employment of minors between sixteen and eighteen years of age is permitted in quarries, but such minors shall be prohibited from engaging in any of the following occupations in quarries: drilling; shot firing; assisting in loading or tamping holes; face cleaning; attaching blocks to chains for cable hoisting; operating or assisting in operating steam, air, or electric shovels; or in any other occupation prohibited by Section 5 of Act 177 of 1915."

The first rule specifically limits the batteries, furnishing light on emergency lighting circuits, to that class of service except that relays of approved fire-alarm systems may be connected thereto for the purpose of providing a signal indicating trouble in the fire-alarm apparatus. It is felt that the law permits of no connections to other apparatus which may jeopardize the full function of the battery when necessary to supply emergency lighting.

The second rule amends a previous rule by modifying it. Minors between sixteen and eighteen years of age are now permitted to be employed at certain occupations in quarries, but are still prohibited from engaging in certain recognized hazardous occupations. With the new restrictions and safeguards provided by the Regulations for Pits and Quarries in connection with the use and storage of explosives, no harm is engendered by the modified rule and a heavy burden is taken from the quarry industry as well as from minors who desire to gain quarry experience.

The following devices were also approved by the Industrial Board at the February meeting:

The Hart Manufacturing Co., Hartford, Conn.	Type "G" Automatic Change-Over Switch for Emergency Lighting Systems
Electric Storage Battery Co., Philadelphia, Pa.	Type U-115 Emergency Lighting System
Signal Engineering & Mfg. Co., 154 West 14th Street, New York City.	Types CD, CA, CDP and CAP Fire Alarm Systems
Signal Engineering & Mfg. Co., 154 West 14th Street, New York City.	Types CDD, CAD, CDDP and CADP Pre-signal Fire Alarm Systems when installations are authorized by the Department
The Steffens-Amberg Co., 260-270 Morris Avenue, Newark, N. J.	Types Numbers 25, 35, 45, S. I. P.-1, 270, 245, 734, 735 and 737 Panic Bolts
George V. Cooper, Inc., Grand Central Terminal, New York City.	Emergency Lighting System installed in York High School, York, Pa.

DECISION OF THE WORKMEN'S COMPENSATION BOARD

JOHN SHAFFER *v.* G. W. SMITH

Practice and Procedure—An amendment to Section 413 contained in Act No. 156 effective April 13, 1927, fixes a limit on petitions to reopen a compensation agreement or award (except in cases of eye injuries) of one year from the date of the last payment of compensation with or without an agreement.

The injury in this case occurred March 5, 1925, and compensation was paid until March 28, 1926. A petition for reinstatement was filed June 7, 1927, more than one year from date of last payment.

The Board held that the right to reinstate is not limited retrospectively and that petition is not barred until one year from April 13, 1927.

OPINION BY COMMISSIONER FLEITZ—FILED JANUARY 3, 1928.

The claimant herein suffered an accidental injury while in the employ of the defendant on March 5, 1925. Immediately thereafter a compensation agreement was entered into between the parties, which agreement was for an indefinite time, and for total disability. Claimant was paid compensation under this agreement until May 5, 1925, when he signed a final receipt and returned to work, which he continued until March 28, 1926. Petition for reinstatement was filed by claimant on June 17, 1927, and answer made by defendant on June 24, 1927. The case was heard before the Referee, who at the conclusion thereof, awarded claimant the sum of $10.80 per week, 60 per cent of his loss in earning power, beginning as of May 15, 1925, and to continue during his partial disability.

Defendant has appealed from both the facts and law as found by the referee, alleging it was not shown at the hearing that the receipt was signed under a mistake of fact, and that the referee erred as a matter of law in not finding the proceedings in this case were barred by Section 413, paragraph 2, of the Workmen's Compensation Act, effective April 13, 1927.

Concerning exceptions to the facts, we have reviewed the testimony and believe the referee has made correct findings thereon.

Concerning the question of law, Section 413 of the Act of June 26, 1919, provides *inter alia:*

> "The Board, or a referee designated by the Board, may at any time review and modify, or set aside an original or supplemental agreement upon petition filed

> with the Board, or in the course of the proceedings, under any petition pending before such Board or referee, if it be proved that such agreement was procured by the fraud, coercion, or other improper conduct of a party, or was founded upon a mistake of law or of fact.
>
> The Board, or referee designated by the Board, may at any time, modify, reinstate, suspend, or terminate an original or supplemental agreement, or an award, upon petition filed by either party, which such Board, upon proof that the disability of an injured employe has increased, decreased, recurred, or has temporarily, or finally ceased, or that the status of any dependent has changed. Such modification, reinstatement, suspension, or termination, shall be made as of the date upon which it is shown that the disability of the injured employe has increased, decreased, recurred, or has temporarily or finally ceased, or upon which it is shown that the status of any dependent has changed."

The Legislature, by Act of April 13, 1927, amended this Section by adding thereto the following clause of limitation:

> "That, except in the case of eye injury, an agreement or an award can only be reviewed, modified, or reinstated during the time such agreement or award has to run, if for a definite period; and, except in the case of eye injury, no agreement or award shall be reviewed or modified, or reinstated, unless a petition is filed with the Board within one year after the date of the last payment of compensation, with or without an agreement."

Under the Act of 1919, no time limit was fixed within which a petition to review, modify, reinstate, or set aside an original or supplemental agreement, could be filed. Under the amending clause of April 13, 1927, a specific time is fixed, viz, "one year after the date of the last payment of compensation." Section 306 of the present Compensation Law, under Sub-Sections (a) and (b), provides that in case of total disability, the claimant shall be allowed to recover compensation for a period of 500 weeks, or 300 weeks in case of partial disability. Claimant would be entitled to have his agreement reviewed or reinstated as prayed for, unless the limiting clause of April 13, 1927, within quoted, is a bar thereto. Article 1, Section 17 of the Constitution of Pennsylvania, provides that "no law impairing the obligation of contracts shall be passed." The Supreme Court of Pennsylvania in the case of Anderson *v.* Carnegie Steel Co. 255 Pa. 33, held that the relation existing between employer and an employe under our Compensation Law is contrac-

tual. This decision is followed by that of the Superior Court in Liberato *v.* Royer & Herr, *et al.,* 81 Pa. Super. Ct. 404, wherein it is said:

> "When an employer and employe accept the provisions of the Workmen's Compensation Act in the manner therein provided, their relations become contractual, and their rights are to be determined by their agreement."

Since this is true, it follows the right to review, modify, reinstate, or set aside an agreement at any time, was part of this contractual relationship. Claimant's petition was filed with the Board approximately two years after the day of the last payment of compensation, but within two months after the effective date of the within cited Act. Counsel for defendant argues that the Act of April 13, 1927, has a retroactive effect, and for the claimant to sustain his position, his petition must have been filed within one year after May 5, 1925. If we were to follow the defendant's contention in this case it would be necessary to construe this law as a retroactive one, and it has been repeatedly held in Pennsylvania that

> "When the effect of the retroactive construction of a statute would be to impair vested rights, or the obligation of a contract, the statute will be construed prospectively."

Hartle *v.* Long, 5 Pa. 491,
Sutton *v.* Clark 7 W. N. C. 437,
Korns *v.* Brown, 64 Pa. 55,
Biddle *v.* Hooven, 120 Pa. 221,
Kay *v.* P. R. R. Co. 65 Pa. 272,
Lewis *v.* P. R. R. Co. 220, 322.

Even though no contract obligation was involved, we believe that under the construction of similar statutes by the Appellate Courts of Pennsylvania, a reasonable period for the enforcement of the amending provision of April 13, 1927, would be allowed. There are several opinions on the construction of the Act of 1895, which fixed a period of two years within which to institute action to recover damages for personal injury. In these cases it was held that action might be properly brought within two years after the passage of the Act, even though the injury had occurred previous to the passage thereof. Rodebaugh *v.* Traction Co. 190 Pa. 358. Another case in which the same principle was laid down is PB & WRR *v.* Quaker City Flour Mills Co. 282 Pa. 362. In a most complete and comprehensive opinion, Mr. Justice Kephart of the Supreme Court of Pennsylvania has discussed many of the principles involved in the present case, and has cited therein many of the leading Pennsylvania

cases, and United States Courts. In this opinion Justice Kephart quotes with approval the following rule:

> "There is no canon of construction better settled than this that a statute shall always be interpreted so as to operate prospectively and not retrospectively unless the language is so clear as to preclude all question as to the intention of the Legislature."

Taylor *v.* Mitchell 57 Pa. 209,
Noff's Appeal, 21 Pa. 243,
Horn and Brannon Mfg. Co. *v.* Steelman 215 Pa. 187.

We are of the opinion that under the authorities cited herein the right of the claimant to have his agreement reinstated is not limited retrospectively, but prospectively, by the amending Act of April 13, 1927; that claimant was entitled to have the agreement reinstated, and to file a petition for this purpose at any time within a year from April 13, 1927. We affirm the referee's findings of fact, and order of reinstatement. The appeal is dismissed.

REVIEW OF INDUSTRIAL STATISTICS

Prepared by

The Bureau of Statistics

THE LABOR MARKET

The unfavorable balance of idle workers over jobs has been increasing steadily for the last eight months. In January, 1928, the surplus of workers was greater than at any time during the last six years. Reports from State Employment offices for January, 1928, show that 9,741 applications for employment were received during the month. Calls from employers numbered only 2,996, or less than one-third enough jobs to go around. The January ratio is 325 applications to every 100 openings, a ten per cent gain over December. Calls from employers for workers during January actually were 988 less than in December. Positions were secured for only 2,062 men and women during January, the lowest figure recorded for many months.

In view of the figures presented in the State Employment office reports during recent months, there can be no question that unemployment in Pennsylvania is rapidly assuming alarming proportions in nearly all industrial groups. State Employment office reports for other large industrial states tend to confirm this conclusion. Unemployment in New York state in December, 1927, was reported as more widespread than it has been for some time.

In Pennsylvania, opportunities for employment have been growing steadily fewer every month since May, 1927. In that month the ratio of applicants per 100 openings was 180. Since then the spread of unemployment has been gradually widening, and a ratio of 325 applicants to every 100 openings was reported for January, 1928. In other words, when in May, 1927, there were less than 2 workers for every available job, there are now more than 3.

Decreased demand for workers was reported in virtually all lines of industry. Recessions in outdoor employments naturally are expected during winter months, in December and in January, however, calls from employers not only in construction and other outdoor employments but in all industry groups showed decided drops.

The scarcity of work in the various sections of the State may be judged from the following figures which show the ratio of applicants to available jobs in each of the nine cities where full-time State Employment offices are maintained. Reports for five part-time offices have been omitted because the monthly totals are too small to permit the calculation of rates which would be at all significant.

CITY	NUMBER OF APPLICANTS FOR JOBS FOR EACH 100 JOBS OPEN		
	January 1928	January 1927	January 1926
Allentown	447	346	83
Altoona	360	295	235
Erie	248	188	168
Harrisburg	155	198	148
Johnstown	406	239	148
Philadelphia	242	228	267
Pittsburgh	405	330	173
Reading	*	156	141
Scranton	467	173	172
All cities	325	253	193

*Less than 100 openings—rate not significant.

EMPLOYMENT, WAGES, AND HOURS WORKED

In addition to the Employment office reports, the reports from employers themselves have been showing gradually reduced employment. Reports submitted each month to the Philadelphia Federal Reserve Bank and to the Department of Labor and Industry from 800 to 900 large employers in the state have shown gradual declines in employment during the last fifteen months. Employment, after maintaining a fairly even keel throughout 1925 and the greater part of 1926, started to slide slowly downward in November, 1926. Since that time there has been an unbroken although scarcely noticeable downward trend. Decreases in employment ranging between .5 per cent and 1.5 per cent from month to month usually pass unnoticed by the average person until it is realized that a sequence of small decreases soon amounts to a considerable figure. That is exactly what has been happening in the manufacturing industry during the last year. The employment decreases shown from month to month in 1927 were at no time greater than 2.9 per cent, yet from January, 1927, to January, 1928, there actually has been a 10 per cent drop in manufacturing employment in Pennsylvania. This percentage decrease translated into round numbers means that in those manufacturing firms alone that report to the Department, there were roughly 30,000 less employes at work in January, 1928, than in January, 1927. And since the reporting firms are estimated to represent only 30 per cent of total manufacturing employment in the state, the reduction in all manufacturing employment in Pennsylvania would approach closely to 100,000.

Reports received from 803 manufacturing establishments during January, 1928, show a decrease in employment of 1.2 per cent com-

pared with the month preceding. Wage payments were 4.6 per cent lower than in December and average earnings of workers were 3.4 per cent less. Total hours worked during the payroll period for the first half of January show a reduction of 4.8 per cent compared with the same period in December.

Among the metal industries, work in blast furnaces and steel works continued slack. Employment in stove works took a drop of 31 per cent. This was due to closings for inventories and repairs and to general seasonal dullness. The electrical appartus group was the only bright spot in the metal industry. Here there was a 14 per cent gain in employment. The increase was limited to the radio industry which in January reached the highest peak of employment in its history. Business throughout the electrical goods industry seemed much better than in December.

Inventory taking in watch and jewelry factories was responsible for the decreased employment reported for that industry.

The recent gains shown for automobile body plants continued in January. Employment was 10 per cent higher than in December.

Railroad car repair work continued slack. Reductions of shop forces were made by nearly all railroads operating in the state. One road put its shopmen on a 5 day instead of a 6 day week.

Few changes were noticed in the textile and clothing industries. Silk mills reported a 10 per cent drop in weekly earnings of workers. Lost time on account of New Year's Day was the reason assigned for the decrease. However, many firms were working short time and business generally was dull. Hosiery mills were operating about the same as in December. Work in other knitting mills showed some reduction.

Decreased earnings were reported by shirt factories and cigar factories. Many of the factories were closed down for a week or even two weeks during the off season.

Lumbering and logging showed the usual reductions due to severe weather. Planing mills also reduced forces. The furniture industry is passing through its dull season and few factories were working full time. Some were operating only 2 and 3 days a week.

Reports received from 33 firms in the construction and contracting industry show a 27 per cent drop in employment in January compared with December. A total of 1,059 men were dropped from the rolls of these 33 firms during the month. This decease brings the January, 1928, level of employment for the construction industry approximately 28 per cent below the level for January, 1927, and nearly 42 per cent below the level for January, 1926. Street and highway construction showed a further seasonal decline with a drop of 58.9 per cent from December. An idea of the speedy curtailment made in highway construction operations during winter

months is gained from the fact that employment for four firms dropped from 2,475 in October to 519 in January, a decline of 79 per cent. Employment from the 19 firms in the building group dropped only 24 per cent during the same period.

The paint, leather products, and paper box manufacturers report lost time due to holidays and inventories.

In summary, it can be said that although the trend of manufacturing employment continued downward there was no abnormal development in the reports for the month. All decreases were reasonably accounted for and very few expressions of business pessimism were heard.

INDUSTRIAL ACCIDENTS AND COMPENSATION COSTS

During January, 1928, 165 fatal and 11,975 non-fatal accidents were reported to the Bureau of Workmen's Compensation. This represents a decrease of five fatal accidents and 2,522 non-fatal accidents under the number reported during January a year ago.

During the year 1927, the average annual industrial accident total was reduced approximately one per cent. In other words, while the accident total for 1927 was 10.9 per cent less than the total for 1926, it also was one per cent less than the annual average for the eleven years preceding. The reduction of the annual average after all is what counts, and even a one per cent reduction of that average is a real accomplishment in safety work. A favorable start has been made in 1928. If the rates of accident reduction established in January (3 per cent for fatal and 17.4 per cent for non-fatal accidents) are maintained throughout the year, then a still greater reduction of the annual accident toll may be expected in 1928.

An interesting view of the accident situation in Pennsylvania since the enactment of the compensation law is obtained from the following table of index numbers. Using the annual average of accidents for the ten-year period 1916-1925 as 100, index numbers for the individual years are as follows:

YEAR	*ACCIDENT INDEX*	*YEAR*	*ACCIDENT INDEX*
1916	139.2	1922	79.6
1917	124.1	1923	109.1
1918	100.6	1924	96.7
1919	83.1	1925	96.0
1920	95.3	1926	98.2
1921	76.3	1927	87.5

The total of 165 fatalities reported during January is an increase of 13 over December. The transportation industry and state and

municipal employment show the largest gains in fatalities. Deaths in the transportation industry jumped from 12 in December to 24 in January, a 100 per cent gain. Fatal accidents on railroads alone were 10 higher than last month. Fatal accidents in the state and municipal group rose from 4 in December to 12 in January, a 200 per cent gain. Four of the 12 public employes killed during January were city fire fighters, two were policemen, one an employe of a state institution, two were laborers, and three were employes of city street cleaning departments. Fatal accident totals for other industry groups in January were as follows: construction and contracting 16, or one more than in December; manufacturing 36, the same number as in December; anthracite coal mining 40, a gain of one; bituminous coal mining 25, a decrease of two; public utilities two, or four less; quarries one, a drop of 3; trade 4, a decrease of two; and miscellaneous five, an increase of two.

Cars and engines for the first time within a year displaced falling objects as the chief cause of fatal injuries to workers. A total of 43 of the 165 industrial fatalities occurring during January were attributed to cars and engines. Of those killed by cars and engines during January, 1 was employed in the food industry, 5 in the metal industry, 1 in a coke plant, 11 in anthracite mines, 5 in bituminous mines, 19 on steam railroads, 1 by a retail store, and 1 by the State Highway Department. The number of steam railroad employes killed by cars and engines is unusually large. The fact that the number of car and engine deaths on steam railroads usually is higher in January than in other months, indicates that there is a very material increase of hazards in railroad employments during the stormy and icy winter months.

Falling objects with a total of 37 was the second highest cause of death during January. Thirty of these 37 fatalities resulted from falls of roof, top, or face in coal mines, 17 in anthracite and 13 in bituminous.

Twenty workers were killed by falls during January. Nine of these were employed in the construction industry, 6 in manufacturing, 2 in anthracite mines, 2 were municipal employes, and 1 was a sign painter employed by a theatrical firm.

Other causes of accidents during January in which workers lost their lives were as follows: motor vehicles 16, explosive substances 9, machinery and electricity 6 each, handling objects and elevators or hoists 5 each, cranes and derricks and miscellaneous causes 4 each, transmission apparatus and hot and corrosive substances 3 each, and 1 each for boilers and pressure apparatus, vehicles other than motor vehicles, hand tools, and stepping upon or striking against objects. Four injured persons died of blood poisoning following their injuries.

During January, 1928, compensation agreements were approved in 5,736 cases involving payments to injured workers or their dependents in the amount of $1,103,802 distributed as follows:

168	fatal cases	$470,921
280	permanent disability cases	237,571
5,288	temporary disability cases	395,310

The $1,103,802 of compensation awarded during January, 1928, is $111,002 or 9.1 per cent, less than the amount awarded during December, 1926, but is an increase of $108,426, or 10.9 per cent, over the amount awarded during January, 1927.

Permanent disability cases compensated during January included awards for the permanent injury or loss of 47 eyes, 5 arms, 15 hands, 118 fingers, 93 phalanges, 12 legs, and 14 feet. Twenty awards also were made in facial disfigurement cases, and in 3 cases of miscellaneous permanent total disability. Among the respective losses enumerated above there were included one case of loss of use of both hands, one case of double eye loss, and one case where both feet were amputated. The number of eye, finger, and phalange losses compensated during January were considerably less than in December.

The average period of disability for the temporary disability cases compensated during January was 50 days. The average duration of disability for all temporary disability cases compensated during the year 1927 was 45 days.

The reduction of the non-compensable waiting period from 10 to 7 days, effective January 1, 1928, produce no noticeable change in the number of compensation awards for January. Of course, since the compensation case record for temporary disability cases is taken after the cases have been closed, and since on the average 48 days elapses between the date of accident and the date of filing compensation agreements at the Department, it is only natural that the record of few cases in this new 7 to 10 day group should appear among the cases closed during January. A check of the January compensation cases shows that there were 41 cases closed that fell within the 7 to 10 day group. Compensation agreements were approved in 12 cases where compensation for 1 day was due, in 7 cases where compensation for 2 days was due, and in 22 cases where 3 days compensation was due. A much greater number of 8, 9, and 10 day disability cases will appear in the compensation case total during succeeding months. It is estimated from the 1926 accident experience that approximately 40,000 compensation cases will be added to the annual total because the non-compensable waiting period has been reduced from 10 to 7 days.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

Group and Industry	No. of Plants Reporting	Number of Wage Earners Week Ended			Total Weekly Wages Week Ended			Average Weekly Earnings Week Ended		
		Jan. 15, 1928	Dec. 15, 1927	Per cent change	Jan. 15 1928	Dec. 15 1927	Per cent change	Jan. 15 1928	Dec. 15 1927	Per cent change
ALL INDUSTRIES: (52)	803	260,858	263,998	— 1.2	$6,458,332	$6,767,418	— 4.6	$24.76	$25.63	— 3.4
Metal products:	241	101,789	102,083	— 0.3	2,701,714	2,763,717	— 2.2	26.54	27.07	— 2.0
Blast furnaces	10	2,164	2,265	— 4.5	65,409	69,108	— 5.4	30.23	30.51	— 0.9
Steel works and rolling mills	44	53,155	53,819	— 1.2	1,431,348	1,450,616	— 1.3	26.93	26.95	— 0.1
Iron and steel forgings	10	1,782	1,785	— 0.2	44,606	47,524	— 6.1	25.03	26.62	— 6.0
Structural iron work	10	3,682	3,607	+ 2.1	100,590	107,064	— 6.0	27.32	29.68	— 8.0
Steam and hot water heating apparatus	18	4,533	4,619	— 1.9	129,386	133,218	— 2.9	28.54	28.84	— 1.0
Stoves and furnaces	9	679	991	—31.5	17,783	27,848	—36.1	26.19	28.10	— 6.8
Foundries	40	7,373	7,440	— 0.9	187,349	205,728	— 8.9	25.41	27.65	— 8.1
Machinery and parts	39	8,678	8,644	+ 0.4	249,255	256,701	— 2.9	28.72	29.70	— 3.3
Electrical apparatus	17	8,215	7,191	+14.2	200,849	180,743	+11.1	24.45	25.13	— 2.7
Engines and pumps	10	3,244	3,124	+ 3.8	84,571	81,076	+ 4.3	26.07	25.95	+ 0.5
Hardware and tools	20	6,339	6,432	— 1.4	140,986	152,064	— 7.3	22.24	23.64	— 5.9
Brass and bronze products	10	669	686	— 2.5	18,858	18,378	+ 2.6	28.19	26.79	+ 5.2
Jewelry and novelties	4	1,276	1,480	—13.8	30,724	33,649	— 8.7	24.08	22.74	+ 5.9
Transportation equipment:	41	28,621	28,551	+ 0.2	779,137	822,835	— 5.3	27.22	28.82	— 5.6
Automobiles	6	2,193	2,198	— 0.2	66,805	68,676	— 2.7	30.46	31.24	— 2.5
Automobile bodies and parts	12	6,763	6,140	+10.1	207,956	201,998	+ 2.9	30.75	32.90	— 6.5
Locomotives and cars	13	13,950	14,315	— 2.5	362,276	388,166	— 6.7	25.97	27.12	— 4.2
Railroad repair shops	7	3,574	3,789	— 5.7	85,653	103,248	—17.0	23.97	27.25	—12.0
Ship building	3	2,141	2,109	+ 1.5	56,447	60,747	— 7.1	26.36	28.80	— 8.5
Textile products:	166	57,611	57,860	— 0.4	1,251,084	1,323,127	— 5.4	21.72	22.87	— 5.0
Cotton goods	14	3,981	3,998	— 0.4	89,159	95,117	— 6.3	22.40	23.79	— 5.8
Woolens and worsteds	16	6,462	6,692	— 3.4	135,417	148,595	— 8.9	20.96	22.20	— 5.6
Silk goods	39	18,529	18,060	+ 2.6	343,137	371,134	— 7.5	18.52	20.55	— 9.9
Textile dyeing and finishing	10	1,864	1,942	— 4.0	47,919	48,695	— 1.6	25.71	25.07	+ 2.6
Carpets and rugs	9	2,741	2,805	— 2.3	67,037	74,882	—10.5	24.46	26.70	— 8.4
Hats	5	3,858	3,890	— 0.8	98,343	103,982	— 5.4	25.49	26.73	— 4.6
Hosiery	27	11,760	11,998	— 2.0	325,057	326,972	— 0.6	27.64	27.25	+ 1.4
Knit goods, other	15	2,714	2,896	— 6.3	48,958	55,801	—12.3	18.04	19.27	— 6.4
Men's clothing	11	1,724	1,801	— 4.3	38,692	36,963	+ 4.7	22.44	20.52	+ 9.4
Women's clothing	9	1,314	1,242	+ 5.8	20,125	19,147	+ 5.1	15.32	15.42	— 0.6
Shirts and furnishings	11	2,664	2,536	+ 5.0	37,240	41,839	—11.0	13.98	16.50	—15.3

Foods and tobacco:	103	21,604	22,160	— 2.5	$436,899	$468,083	— 6.7	$20.22	$21.12	— 4.3
Bread and bakery products	29	4,252	4,362	— 2.5	123,295	127,649	— 3.4	29.00	29.26	— 0.9
Confectionery	14	4,489	4,727	— 5.0	78,986	88,727	—11.0	17.60	18.77	— 6.2
Ice cream	11	1,140	1,141	— 0.1	38,377	36,597	+ 4.9	33.66	32.07	+ 5.0
Meat packing	14	2,114	2,148	— 1.6	61,776	63,527	— 2.8	29.22	29.57	— 1.2
Cigars and tobacco	35	9,609	9,782	— 1.8	134,465	151,583	—11.3	13.99	15.50	— 9.7
Stone, clay and glass products:	66	16,568	17,989	— 7.9	400,596	465,432	—13.9	24.18	25.87	— 6.5
Brick, tile and pottery	29	4,395	4,687	— 6.2	95,545	107,348	—11.0	21.74	22.90	— 5.1
Cement	14	5,949	6,593	— 9.8	167,782	200,514	—16.3	28.20	30.41	— 7.3
Glass	23	6,224	6,709	— 7.2	137,269	157,570	—12.9	22.05	23.49	— 6.1
Lumber products:	44	4,352	4,903	—11.2	91,802	105,987	—13.4	21.09	21.62	— 2.5
Lumber and planing mills	19	1,944	2,254	—13.8	43,160	48,945	—11.8	22.20	21.71	+ 2.3
Furniture	19	1,728	1,945	—11.2	38,722	46,273	—16.3	22.41	23.79	— 5.8
Wooden boxes	6	680	704	— 3.4	9,920	10,769	— 7.9	14.59	15.30	— 4.6
Construction and contracting:*	33	2,870	3,929	—27.0	81,259	111,404	—27.1	28.31	28.35	— 0.1
Buildings	19	1,264	1,381	— 8.5	38,557	41,894	— 8.0	30.50	30.34	+ 0.5
Street and highway	4	519	1,262	—58.9	12,450	32,315	—61.5	23.99	24.02	— 0.1
General	10	1,087	1,286	—15.5	30,252	37,195	—18.7	27.83	28.92	— 3.8
Chemical products:	35	10,671	10,689	— 0.2	291,105	309,205	— 5.9	27.28	28.93	— 5.7
Chemicals and drugs	15	1,224	1,206	+ 1.5	32,529	32,469	+ 0.2	26.58	26.92	— 1.3
Coke	3	2,809	2,681	+ 4.8	78,071	78,780	— 0.9	27.79	29.38	— 5.4
Explosives	3	539	565	— 4.6	10,434	13,326	—21.7	19.36	23.59	—17.9
Paints and varnishes	9	1,026	1,059	— 3.1	24,905	29,626	—15.9	24.27	27.98	—13.3
Petroleum refining	5	5,073	5,178	— 2.0	145,166	155,004	— 6.3	28.62	29.94	— 4.4
Leather and rubber products:	51	11,683	11,679	+ 0.0	266,135	263,696	+ 0.9	22.78	22.58	+ 0.9
Leather tanning	17	5,893	5,876	+ 0.3	146,919	148,299	— 0.9	24.93	25.24	— 1.2
Shoes	23	4,211	4,178	+ 0.8	77,487	72,546	+ 7.3	18.40	17.36	+ 6.0
Leather products, other	7	611	688	—10.9	13,056	15,162	—13.9	21.37	22.10	— 3.3
Rubber tires and goods	4	968	939	+ 3.1	28,673	27,689	+ 3.6	29.62	29.49	+ 0.4
Paper and printing:	56	7,959	8,084	— 1.5	239,860	245,336	— 2.2	30.14	30.35	— 0.7
Paper and wood pulp	12	3,145	3,200	— 1.7	88,407	93,556	— 5.5	28.11	29.24	— 3.9
Paper boxes and bags	6	723	796	— 9.2	9,790	12,236	—20.0	13.54	15.37	—11.9
Printing and publishing	38	4,091	4,088	+ 0.1	141,663	139,544	+ 1.5	34.63	34.14	+ 1.4

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Man-Hours Week Ended			Average Hourly Wages Week Ended		
		January 15 1928	December 15 1927	Per cent change	January 15 1928	December 15 1927	Per cent change
ALL INDUSTRIES: (46)	464	$6,315,351	$6,636,979	— 4.8	$ .563	$ .562	+ 0.2
Metal Products:	170	3,205,681	3,314,982	— 3.3	.601	.598	+ 0.5
Blast furnaces	8	104,205	110,296	— 5.5	.580	.579	+ 0.2
Steel works and rolling mills	27	1,704,908	1,723,303	— 1.1	.624	.617	+ 7.7
Iron and steel forgings	8	59,479	66,750	—10.9	.561	.554	+ 1.3
Structural iron work	5	40,567	44,266	— 8.4	.597	.586	+ 1.9
Steam and hot water heating app.	12	114,202	129,468	—11.8	.624	.625	— 0.2
Foundries	34	283,527	312,060	— 9.1	.607	.612	— 0.8
Machinery and parts	30	328,631	330,498	— 0.6	.594	.604	— 1.7
Electrical appartus	13	154,040	188,324	—18.2	.513	.516	— 0.6
Engines and pumps	9	126,104	121,292	+ 4.0	.600	.602	— 0.3
Hardware and tools	14	201,232	200,276	+ 0.5	.518	.527	— 1.7
Brass and bronze products	8	31,888	31,007	+ 2.8	.560	.560	0.0
Jewelry and novelties	3	56,898	57,440	— 0.9	.496	.496	0.0
Transportation equipment:	33	823,094	867,590	— 5.1	.614	.625	— 1.8
Automobiles	6	105,030	102,312	+ 2.7	.636	.671	— 5.2
Automobile bodies and parts	9	336,264	327,329	+ 2.7	.603	.600	+ 0.3
Locomotives and cars	9	214,413	249,758	—14.2	.591	.598	— 1.2
Railroad repair shops	5	81,036	95,788	—15.4	.648	.695	— 6.8
Shipbuilding	3	86,351	92,403	— 6.5	.654	.657	— 0.5
Textile Products:	68	949,058	1,012,908	— 6.3	.438	.439	— 0.2
Cotton goods	11	64,486	74,119	—13.0	.474	.472	+ 0.4
Woolens and worsteds	9	120,349	117,696	+ 2.3	.471	.492	— 4.3
Silk goods	20	471,052	512,399	— 8.1	.419	.416	+ 0.7
Textile dyeing and finishing	5	34,749	35,391	— 1.8	.486	.495	— 1.8
Carpets and rugs	4	84,533	83,970	+ 0.7	.524	.532	— 1.5
Hosiery	5	70,402	80,954	—13.0	.481	.454	+ 5.9
Knit goods, other	8	51,826	59,201	—12.5	.384	.387	— 0.8
Women's clothing	3	14,092	12,969	+ 8.7	.403	.408	— 1.2
Shirts and furnishings	3	37,569	36,209	+ 3.8	.290	.328	—11.6

Foods and tobacco:	42	$ 263,532	$ 274,497	— 4.0	$ .513	$ .505	+ 1.6
Bread and bakery products	16	73,326	76,538	— 4.2	.524	.518	+ 1.2
Confectionery	5	79,240	86,083	— 7.9	.438	.442	— 0.9
Ice cream	7	41,660	40,007	+ 4.1	.600	.567	+ 5.8
Meat packing	9	62,941	65,214	— 3.5	.542	.540	+ 0.4
Cigars and tobacco	5	6,365	6,655	— 4.4	.455	.445	+ 2.2
Stone, clay and glass products:	35	402,616	468,086	—14.0	.556	.547	+ 1.6
Brick, tile and pottery	16	112,170	122,331	— 8.3	.529	.536	— 1.3
Cement	7	139,987	187,463	—25.3	.516	.510	+ 1.2
Glass	12	150,459	158,292	— 4.9	.613	.598	+ 2.5
Lumber Products:	35	110,151	125,792	—12.4	.500	.513	— 2.5
Lumber and planing mills	15	44,898	47,189	— 4.9	.532	.538	— 1.1
Furniture	16	57,328	67,936	—15.6	.490	.518	— 5.4
Wooden boxes	4	7,925	10,667	—25.7	.392	.374	+ 4.8
Construction and Contracting:*	27	101,168	148,205	—31.7	.712	.659	+ 8.0
Buildings	16	45,085	49,640	— 9.2	.786	.772	+ 1.8
Street and highway	4	20,947	58,886	—64.4	.595	.549	+ 8.4
General	7	35,136	39,679	—11.5	.688	.680	+ 1.2
Chemical Products:	18	84,913	95,153	—10.8	.520	.519	+ 0.2
Chemicals and drugs	12	46,308	48,248	— 4.0	.491	.491	0.0
Paints and varnishes	6	38,605	46,905	—17.7	.555	.549	+ 1.1
Leather and Rubber Products:	27	255,440	247,034	+ 3.4	.485	.474	+ 2.3
Leather tanning	9	110,605	106,540	+ 3.8	.536	.539	— 0.6
Shoes	10	86,155	83,640	+ 3.0	.358	.326	+ 9.8
Leather products, other	4	9,630	9,163	+ 5.1	.537	.529	+ 1.5
Rubber tires and goods	4	49,050	47,691	+ 2.8	.585	.581	+ 0.7
Paper and Printing:	36	220,866	230,937	— 4.4	.587	.588	— 0.2
Paper and wood pulp	8	139,391	143,767	— 3.0	.539	.549	— 1.8
Paper boxes and bags	3	8,265	10,728	—23.0	.346	.341	+ 1.5
Printing and publishing	25	73,210	76,442	— 4.2	.705	.696	+ 1.3

*Not included in total for all Industries.

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

City Areas	No. of Plants Reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Jan. 15 1928	Dec. 15 1927	Per cent change	Jan. 15 1928	Dec. 15 1927	Per cent change	Jan. 15 1928	Dec. 15 1927	Per cent change
Allentown-Bethlehem-Easton	77	20,408	21,324	— 4.3	$ 487,366	$ 555,107	—12.2	$ 23.88	$ 26.03	— 8.3
Altoona	14	2,267	2,370	— 4.3	44,367	49,807	—10.9	19.57	21.02	— 6.9
Erie	11	3,767	3,810	— 1.1	112,195	113,950	— 1.5	29.78	29.91	— 0.4
Harrisburg	34	6,687	6,951	— 3.8	135,781	140,097	— 3.1	20.31	20.15	+ 0.8
Hazleton-Pottsville,	19	4,450	4,391	+ 1.3	94,449	98,351	— 4.0	21.22	22.40	— 5.3
Johnstown	11	839	849	— 1.2	24,870	20,639	+20.5	29.64	24.31	+21.9
Lancaster	28	4,284	4,524	— 5.3	88,806	95,783	— 7.3	20.73	21.17	— 2.1
New Castle	9	5,701	5,597	+ 1.9	155,722	160,175	— 2.8	27.31	28.62	— 4.6
Philadelphia	241	85,685	85,738	— 0.1	2,319,077	2,369,922	— 2.1	27.07	27.64	— 2.1
Pittsburgh	94	59,305	60,564	— 2.1	1,576,765	1,618,408	— 2.6	26.59	26.72	— 0.5
Reading-Lebanon	63	20,689	20,947	— 1.2	493,315	514,889	— 4.2	23.84	24.58	— 3.0
Scranton	33	4,956	5,057	— 2.0	86,170	100,623	—14.4	17.39	19.90	—12.6
Sunbury	25	10,801	10,188	+ 6.0	209,776	226,960	— 7.6	19.42	22.28	—12.8
Wilkes-Barre	21	5,747	5,133	+12.0	99,607	106,445	— 6.4	17.33	20.74	—16.4
Williamsport	21	3,375	3,667	— 8.0	75,831	80,507	— 5.8	22.47	21.95	+ 2.4
York	45	5,990	6,316	— 5.2	118,215	129,592	— 8.8	19.74	20.52	— 3.8

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF JANUARY, 1928

Industries	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	9,741	6,477	3,264	2,996	1,858	1,138	3,220	2,028	1,192	2,062	1,334	728
Total: Industrial group (skilled)	3,980	3,092	888	1,261	987	274	1,326	1,040	286	684	581	103
Building and construction	661	661		210	210		212	212		110	110	
Shipbuilding	43	43		19	19		19	19		7	7	
Chemicals and allied products												
Clay, glass and stone products												
Clothing	20	1	19	23		23	4		4	3		3
Textiles	52	44	8	44	1	43	4	1	3	4	1	3
Food and kindred products	32	31	1	4	2	2	3	2	1	2	2	
Leather, rubber and composition goods	40	34	6	28	14	14	21	14	7	14	8	6
Lumber, woodwork and furniture	107	107		54	54		52	52		34	34	
Paper and printing	11	11		3	3		3	3		3	3	
Metals and metal products	930	923	7	446	443	3	447	444	3	255	254	1
Mines and quarries	4	4										
Transportation and public utilities	578	574	4	147	146	1	157	156	1	98	97	1
Hotel and restaurant	188	49	139	55	13	42	54	14	40	25	5	20
Wholesale and retail trade	301	116	185	65	5	60	37	7	30	21	5	16
Miscellaneous	1,013	494	519	163	77	86	313	116	197	108	55	53
Total: Other groups	5,761	3,385	2,376	1,735	871	864	1,894	988	906	1,378	753	625
Professional and technical	580	497	83	131	120	11	178	156	22	60	54	6
Agriculture	19	19		7	7		5	5		5	5	
Semi-skilled	2,348	1,068	1,280	626	141	485	683	169	514	370	114	256
Unskilled	1,803	1,668	135	536	505	31	586	558	28	510	483	27
Casual and day workers[1]	1,011	133	878	435	98	337	442	100	342	433	97	336
December, 1927	9,906	6.623	3,283	3,984	2,505	1,479	4,084	2,617	1,467	2,949	1,975	974
November, 1927	8,971	5,978	2,993	4,294	2,768	1,526	4,296	2,822	1,474	3,213	2,222	991
October, 1927	9,118	6,018	3,100	4,475	2,792	1,683	4,488	2,909	1,579	3,297	2,260	1,037
January, 1927	11,151	7,312	3,839	4,408	2,693	1,715	4,645	2,891	1,754	3,803	2,506	1,297
January, 1926	10,755	7,427	3,328	5,527	3,816	1,711	5,964	4,231	1,733	5,012	3,622	1,3[illegible]0
January, 1925	10,349	7,247	3,102	5,619	4,021	1,598	5,841	4,316	1,525	5,032	3,783	1,249

[1] The placement of each casual or day worker is recorded for only one (1) placement per week.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

ACCIDENT REPORTS RECEIVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	165	135	11,840	12,140
February				
March				
April				
May				
June				
Total—1928	165	135	11,840	12,140
1927				
January	170	144	14,353	14,667
February	184	154	12,947	13,285
March	163	150	14,182	14,495
April	169	145	12,548	12,862
May	173	139	12,730	13,042
June	186	124	13,317	13,627
Total—1927	2,064	1,665	157,025	160,754
*Grand Total	29,031	11,399	2,149,532	2,189,962

AGREEMENTS APPROVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	168	280	5,288	5,736
February				
March				
April				
May				
June				
Total—1928	168	280	5,288	5,736
1927				
January	158	250	4,760	5,168
February	174	363	3,994	4,531
March	174	323	4,945	5,442
April	131	231	6,829	7,191
May	128	262	7,839	8,229
June	186	309	7,531	8,026
Total—1927	2,001	3,479	69,406	74,886
*Grand Total	23,924	24,243	800,651	848,818

*Since the inception of the Act, January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	Awarded: Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded
January	$1,103,802	$ 470,921	$ 237,571	$ 395,310
February				
March				
April				
May				
June				
Total—1928	$1,103,802	$ 470,921	$ 237,571	$ 395,310
1927				
January	$ 995,376	$ 528,084	$ 210,370	$ 256,922
February	1,097,268	504,421	374,696	218,151
March	979,090	510,805	251,823	216,462
April	846,197	393,650	204,166	248,381
May	1,087,132	380,418	268,041	438,673
June	1,408,339	482,313	312,575	613,451
Total—1927	$13,329,557	$ 5,772,868	$ 3,226,464	$ 4,330,225
*Grand Total	$136,088,814	$65,897,571	$28,118,904	$42,072,339

1928	Paid: Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
January	$ 930,580	$ 297,118	$ 238,152	$ 395,310
February				
March				
April				
May				
June				
Total—1928	$ 930,580	$ 297,118	$ 238,152	$ 395,310
1927				
January	$ 867,141	$ 331,075	$ 279,144	$ 256,922
February	746,916	279,197	249,568	218,151
March	851,925	359,705	275,758	216,462
April	785,120	290,396	246,343	248,381
May	916,262	211,002	266,587	438,673
June	1,517,144	331,392	572,301	613,451
Total—1927	$11,697,889	$ 3,492,763	$ 3,860,969	$ 4,330,225
*Grand Total	$94,468,084	$29,009,399	$23,386,346	$42,072,339

*Since the inception of the Act, January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	12	$26,774	5	$13,287	15	$30,734	14	$24,898	47	$69,998
February										
March										
April										
May										
June										
Total—1928	12	$26,774	5	$13,287	15	$30,734	14	$24,898	47	$69,998
1927										
January	10	$25,714	8	$20,640	13	$26,759	8	$14,708	34	$49,923
February	19	46,639	9	23,220	28	54,922	18	31,609	77	116,274
March	11	28,164	8	19,545	15	28,105	10	16,724	46	69,564
April	4	10,240	4	10,143	15	30,905	10	16,763	32	46,858
May	9	23,060	7	17,291	15	29,728	10	18,624	50	77,095
June	8	19,647	3	7,714	19	38,246	22	39,747	47	72,249
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand total	1,261	$2,772,351	899	$1,992,213	2,862	$5,195,933	1,731	$2,852,445	7,095	$9,834,409

**PERMANENT INJURIES

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	118	$37,612	93	$16,432	20	$4,248	3	$13,588
February								
March								
April								
May								
June								
Total—1928	118	$37,612	93	$16,432	20	$4,248	3	$13,588
1927								
January	100	$34,173	99	$19,164	12	$7,227	3	$12,062
February	154	54,073	97	18,274	7	2,451	6	27,234
March	148	45,955	130	23,366	7	1,671	4	18,729
April	113	38,669	88	14,417	6	3,816	7	32,355
May	95	31,829	95	18,582	7	3,296	10	48,536
June	143	44,786	99	19,408	6	3,588	19	67,190
Total—1927	1,502	$509,006	1,202	$226,122	120	$51,059	89	$370,067
*Grand total	6,881	$2,346,647	5,759	$1,076,874	384	$223,076	440	$1,824,956

*Since the inception of the act—January 1, 1916.

**Multiple losses separated respectively.

NOTE: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING JANUARY, 1928

Cause	Total of all industries		Construction and Contracting						Coal Mining				Quarrying and mining other than coal mining		Manufacturing																	
			Building construction		Other construction		Contracting		Anthracite		Bituminous				Total of manufacturing industries		Chemicals and allied products		Clay, glass and stone products		Clothing		Food and kindred products		Leather, rubber, and composition goods		Lumber, wood and their products		Paper and paper products and printing and publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	165	11,975	7	687	9	237	--	310	39	2,055	26	2,115	1	149	36	3,893	5	219	--	322	--	150	3	362	--	117	4	286	3	167	1	207
Working machinery and processes	6	838	--	20	--	12	--	7	1	22	2	82	--	4	3	607	--	11	--	15	--	56	--	32	--	23	--	70	2	48	--	66
Boilers and pressure apparatus	1	18	--	2	--	1	--	-----	--	5	--	-----	--	-----	1	8	1	1	--	2	--	-----	--	-----	--	-----	--	-----	--	-----	--	1
Pumps and prime movers	---	15	--	1	--	2	--	7	--	6	--	6	--	-----	--	17	--	9	--	1	--	-----	--	1	--	-----	--	-----	--	-----	--	1
Transmission apparatus	3	26	--	-----	--	-----	--	-----	--	4	--	5	--	-----	2	15	--	1	--	1	--	-----	--	-----	--	1	--	3	1	-----	--	-----
Elevators and hoists	5	61	--	6	--	2	--	2	1	4	1	7	--	2	1	15	--	-----	--	-----	--	-----	--	2	--	-----	--	-----	--	1	1	2
Cranes and derricks	4	175	--	23	--	11	--	7	--	3	--	5	--	6	4	102	1	2	--	7	--	-----	--	1	--	2	--	3	--	-----	--	-----
Cars and engines	43	1,223	--	3	--	4	--	6	11	322	5	560	--	19	6	88	--	5	--	24	--	-----	--	3	--	-----	--	3	--	1	--	-----
Motor vehicles	16	575	1	25	2	8	--	23	--	2	--	10	--	6	4	175	--	17	--	6	--	7	1	36	--	1	1	12	--	6	--	-----
Other vehicles	1	137	--	2	--	1	--	16	--	2	--	5	--	2	--	44	--	2	--	-----	--	-----	--	21	--	-----	--	20	--	-----	--	-----
Hand trucks	---	156	--	5	--	3	--	10	--	2	--	2	--	1	--	102	--	7	--	21	--	1	--	3	--	5	--	6	--	10	--	4
Water and air craft	---	11	--	-----	--	1	--	1	--	-----	--	1	--	1	--	2	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Handling objects—by hand	5	2,398	--	150	--	61	--	76	1	370	1	247	--	31	2	933	--	37	--	95	--	19	1	83	--	28	1	65	--	36	--	50
Hand tools	1	1,082	--	53	--	21	--	20	--	249	--	225	--	18	1	323	1	21	--	18	--	17	--	22	--	10	--	28	--	3	--	15
Electricity	6	91	--	6	1	-----	--	-----	--	14	2	31	--	-----	--	22	--	3	--	1	--	1	--	1	--	-----	--	-----	--	2	--	-----
Explosive substances	9	164	--	4	--	3	--	4	5	59	1	22	--	6	1	38	1	11	--	4	--	2	--	2	--	-----	--	-----	--	-----	--	1
Hot and corrosive substances	3	380	--	36	--	8	--	8	--	14	--	18	--	1	1	224	--	17	--	12	--	4	--	22	--	3	--	3	--	5	--	7
Falling objects	37	1,696	1	66	2	22	--	36	17	539	13	618	1	24	2	291	1	16	--	30	--	3	--	18	--	8	1	29	--	12	--	6
Falls of persons	20	1,759	5	193	4	44	--	52	2	196	--	123	--	20	6	569	--	45	--	48	--	21	1	68	--	18	1	31	--	31	--	36
Stepping upon or striking against objects	1	682	--	70	--	24	--	17	--	156	1	84	--	4	--	200	--	10	--	23	--	16	--	25	--	12	--	11	--	11	--	13
Miscellaneous	4	458	--	22	--	9	--	18	1	86	--	64	--	4	2	118	--	4	--	14	--	3	--	22	--	6	--	2	--	1	--	5

*F—Fatal.   N F—Non-Fatal,

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING JANUARY, 1928—Concluded

Cause	Manufacturing—Concluded																					Transportation and Public Utilities									Other Industries											
		Metals and Metal Products																															Trading										
	Total			Blast furnaces and steel works			Rolling mills			Foundries and machine shops			Fabrication			Car repairshops			Automobile service stations			Other			Steam railroads			Other transportation			Public utilities			Hotels and restaurants			Retail			Wholesale			State and municipal			Miscellaneous		
*	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F
Total of all causes	19	1,986	2	81	4	366	1	372	7	698	3	299	2	170	1	77	20	511	4	157	2	202	--	134	4	531	--	145	12	314	5	535
Working machinery and processes	1	266	--	2	1	43	--	64	--	132	--	16	--	9	--	20	--	2	--	1	--	5	--	9	--	19	--	5	--	2	--	41
Boilers and pressure apparatus	--	4	--	--	--	--	--	--	--	1	--	2	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Pumps and prime movers	--	5	--	--	--	--	--	1	--	2	--	1	--	1	--	--	--	--	--	--	--	2	--	1	--	2	--	--	--	1	--	--
Transmission apparatus	1	8	--	--	--	2	1	--	--	5	--	1	--	--	--	1	--	--	--	--	--	1	--	--	--	1	--	--	1	--	--	--
Elevators and hoists	--	9	--	--	--	1	--	1	--	6	--	1	--	--	--	1	--	--	--	1	--	1	--	5	1	6	--	4	1	1	--	5
Cranes and derricks	3	87	--	7	2	19	--	19	1	27	--	12	--	3	--	--	--	4	--	3	--	2	--	--	--	2	--	1	--	1	--	5
Cars and engines	5	51	2	3	1	5	--	2	--	10	2	31	--	--	1	1	19	187	--	20	--	3	--	--	1	4	--	--	1	4	--	3
Motor vehicles	2	88	--	--	--	2	--	4	1	17	--	3	1	62	--	2	--	5	2	51	--	19	--	2	--	73	--	24	4	57	3	95
Other vehicles	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2	--	14	--	--	1	10	--	2	--	19	--	18
Hand trucks	--	44	--	1	--	14	--	9	--	16	--	4	--	--	--	1	--	13	--	4	--	1	--	--	--	2	--	8	--	--	--	3
Water and air craft	--	1	--	--	--	--	--	--	--	--	--	1	--	--	--	1	--	3	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Handling objects—by hand	--	503	--	11	--	102	--	116	--	186	--	61	--	27	--	17	--	104	1	24	--	29	--	26	--	156	--	45	--	33	--	113
Hand tools	--	184	--	9	--	22	--	29	--	60	--	44	--	20	--	5	--	46	--	5	--	17	--	13	--	36	--	4	--	17	--	35
Electricity	--	13	--	1	--	1	--	3	--	5	--	2	--	1	--	1	--	--	--	9	2	6	--	--	--	2	--	--	--	--	1	1
Explosive substances	--	18	--	1	--	--	--	--	--	8	--	2	--	7	--	--	1	2	1	1	--	9	--	2	--	4	--	1	--	3	--	6
Hot and corrosive substances	1	159	--	18	--	31	--	42	--	40	1	9	--	10	--	1	--	8	--	1	--	9	--	14	1	12	--	3	1	6	--	18
Falling objects	--	166	--	10	--	37	--	33	--	59	--	25	--	2	--	3	--	13	--	3	--	10	--	6	--	13	--	9	1	26	--	20
Falls of persons	4	256	--	14	--	57	--	26	4	76	--	61	--	22	--	15	--	85	--	20	--	49	--	45	--	139	--	27	2	85	1	112
Stepping upon or striking against objects	--	75	--	2	--	20	--	14	--	24	--	12	--	3	--	4	--	16	--	4	--	17	--	5	--	30	--	9	--	24	--	22
Miscellaneous	2	58	--	2	--	10	--	9	1	24	--	11	1	2	--	3	--	23	--	8	--	7	--	6	--	20	--	3	1	34	--	36

*F=Fatal. N. F.=Non-Fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	165	11,975	12,140
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285			
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*			
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	163	14,332	14,495			
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*			
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862			
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*			
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042			
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*			
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627			
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*			
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724			
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*			
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*			
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,341*	*133,913*	*1,556*	*120,420*	*121,976*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	152	11,619	11,771			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

MAIN OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
Bureau of Employment
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
State Workmen's Insurance Fund,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.

Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
412 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
309 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
Hazleton National Bank Building.

Johnstown: .....State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.
Bureau of Inspection,
427 Swank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
State Employment Office for Women,
Bureau of Women and Children,
1924-26 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
108 North Fifth Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
Witmer Building.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.

Williamsport: .....Bureau of Inspection,
Heyman Building.
Workmen's Compensation Referee,
311 First National Bank Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.

Note—State Employment offices are conducted in cooperation with the United States Employment Service.

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Contents

FOREWORD

Realizing the part that health is playing in accident prevention activities, and the basic value of the work of the industrial physician in carrying on this work, the Department of Labor and Industry decided to devote this issue of the monthly bulletin to a consideration of this subject. This is done for the purpose of stimulating interest in industrial health problems and of presenting plans of activity to those who have already entered into this important phase of accident prevention.

PRACTICAL RESULTS OF PHYSICAL EXAMINATIONS IN INDUSTRY

T. Lyle Hazlett, M. D.

Medical Director, Westinghouse Electric and Manufacturing Company East Pittsburgh, Pennsylvania

The practice of making physical examinations of prospective employes to determine their physical fitness for the work which they are expected to perform, and similar periodic examinations later to see whether they continue fit, or whether they have followed recommendations given them at the time of employment relative to their general health, is of comparatively recent origin, but is one of the accompaniments of the progressive development of industrial life with its complicated mechanism requiring many employes for various classes of work where different physical requisites are as necessary as skill to perform the tasks assigned.

It is necessary for us to consider the physical condition of an employe; for each line of work requires a certain physical rating in order that it may be successfully performed, and in order to accomplish this a rough classification must be made of the work to be done and the physical requirements necessary.

1. Strenuous muscular work probably under varying thermal conditions:

   This requires a robust, well proportioned man, with heart and lungs in normal condition; and in order that an employe do this work it is very necessary that he should have a physical examination yearly.

2. Medium muscular work, such as light labor or mechanical work, not requiring more skill than in class 1:

   This requires a man of medium strength and weight, heart and lung conditions fairly good. Normal vision may or may not be necessary. Such type of man should have a periodic examination at least every two years after 40 years of age.

3. Very light work requiring close attention but little muscular effort:

   This requires a man not nearly so robust or muscular as in classes 1 and 2. Perfect vision may or may not be

essential. Heart and lungs need not necessarily be of the highest standard, and he might in some cases be crippled or deformed. This man should have a periodic examination once a year.

4. Work of varying degrees from firing a locomotive to running an elevator or electric crane:

This group is a composite of the others, first consideration to be given to the safety of other persons; requires a man of great or little muscular strength, according to the work, but both vision and hearing must be normal. It is very necessary that this man should have a yearly examination at all ages.

In making initial and periodic examinations some physical defects may be found, such as defective vision; a hernia, which can be corrected at once to the personal advantage of the employe, apart from the question of employment; and some cases of illness, which may require but a short time to clear up, enabling the man to be given employment, or to resume it, as the case may be. The value of periodic examinations is especially seen in detecting beginning heart conditions, tuberculosis, and diseases of the kidneys. In many such cases if the man had kept on working he would undoubtedly have been a permanent charge on the community.

There are, however, prospective employes who are found to be permanently unfit for work. Such discovery is not pleasant, and great care must be exercised as to the type of work given such employes, if given at all. In cases where periodic physical examinations disclose impairments it is much easier to provide work; for the employe, perhaps, has had many years of service and is familiar with the working of the plant, and naturally there is a feeling of obligation to provide for him; whereas for a stranger who has spent the most productive years of his life elsewhere the same feeling of obligation does not exist, and the discovery of some physical ailment which interferes with his earning capacity is a more serious problem. Such a man is likely to criticise the prospective employer or his agent, in the person of the examining physician, when his misfortune has been due to no fault of theirs, and who, though perfectly willing, are unable to remove his disability or provide him with employment which would not further injure his health or endanger his fellow workmen. Under such circumstances the best that can be done is to explain to him his condition and give him such advice and information as we can in regard to his own care and the course he should pursue in order to care for or overcome his disability. The trouble with the systematic physical examination of employes is that it is new and its full benefits can-

not be appreciated until it becomes more universal. Such examinations should start in youth, at the time when the worker is starting upon his life work and can plan his future in accordance with his physical capabilities and not start at some line of work or business in which he is handicapped from the beginning. It is not uncommon for us to examine young people who, we find, need the care of a tuberculosis sanitorium rather than work, and we can sometimes convince them of this fact, and have been able to procure such care for them. At other times we have been able to arrange the courses of students and apprentices to conform to their physical conditions and thus probably have been the means of guarding them from failure in health and in career.

The medical profession has made great strides in recent years in the way of prevention and cure of disease. This has come about through a better understanding of their causes, methods of prevention, and cure, as a result of constantly improving scientific research. But physicians fully realize their limitations in the way of definite cures for many diseases, and strongly advocate the use of all possible means for their prevention, or failing that, the prompt discovery of diseases or abnormal conditions so that they may be cared for to the best advantage.

Many conditions detrimental to health may exist and give no perceptible evidence of their existence to the individual, but which would be readily recognized by a physician.

In order to locate physical impairments or unknown diseased conditions promptly, periodic examinations are recommended in all cases, even though the health of the individual is apparently perfect.

Some life insurance companies make such examinations gratis to their policyholders, presumably as a business proposition, and it is reasonable to believe that industrial corporations could follow a similar course to good advantage both to themselves and their employes even though some contributory system were necessary in order to carry out the plan.

Such examinations in many cases would be but the extension of a system already instituted for the examination of employes to test their fitness for work, and arrangements could be made to have them made with comparatively little loss of time and at a minimum of expense for physicians' services and laboratory or other scientific tests.

One who does not come in contact with a large number of men in such relation as does an industrial physician can hardly realize how men neglect their most valuable asset, that is their health, and the large number of failures that could have been prevented by proper care at the first indication of trouble.

Some men are heedless of the future in general, their health in

particular. Others are so engrossed in the pursuit of some object of a business or professional nature that they give little thought or attention to other interests until some physical crisis comes, probably partly due to overtaxing their strength in the pursuit of some desired, and very likely commendable, objective.

Finally, there is the steady worker of medium ability, faithful to his family and employer, and a good citizen, but whose income is limited.

The conclusion seems to be justified that all these people need some practical agency to call their attention to this important subject and to audit their physical accounts as is customary with their banking accounts.

We have many methods of checking physical accounts but their use is not so extensive as they should be and such a system as this would practically force it upon those who simply neglect it, and make it available to those who for financial reasons defer and avoid it; the final result being that they would all get some badly needed service at a diminishd cost.

The latter point is one that certainly should not be overlooked for it is well understood that our modern methods are rather expensive. The criticism that these examinations are only available to the very rich or to the very poor seems to be justified. Something should be done to make them more accessible to those who will not make themselves objects of charity, and yet who are unable to get the best treatment that science affords without impoverishing themselves.

The group plan presents the most practical method available at the present time, and practical methods are the ones that are needed and not visionary ones that, however desirable they may be, are not suited to our present social conditions.

Finally, in order that industry may give more employment to subnormal individuals, and make them economically independent there is great need for the State to assume a part of the responsibility for handicapped workers, and not compel the industries to assume full liability for all employes, regardless of their physical condition, as health is the greatest factor in the prevention of accidents and the biggest asset in the life of any individual.

MEDICAL SERVICE TO GROUPS OF SMALL PLANTS

By W. J. McConnell, B. S., M. D.

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That the need for medical services in small plants is relatively as great as in large plants is readily admitted. The small plant must deal with certain health problems, some of which are just as large and complicated as those found in the larger plant.

The type of assistance rendered to any individual plant by its medical department varies necessarily to a certain extent depending upon the nature of the industry, but many of its activities are constant. In this age of keen competition, industrial managers welcome, as a sound business policy, any advances in science which will tend to maintain and to retain workers in a state of health and efficiency.

The effective work along these lines, possible only when supervised by a competent medical department, is an important factor in maximum production at minimum cost. Continued prosperity is dependent not so much upon the supply of raw material and the value of the finished product, as upon the physical efficiency of the worker and his years of economic productivity.

The medical department of a plant initiates its program by a careful selection of employes based upon the mental and physical qualifications required for the job. Physical examinations, likewise, exclude or control communicable diseases. This protection is only simple justice to fellow-workers. The chief object of such examinations perhaps lies in detecting incipient defects and diseases which is most important. The information thus afforded is used not for the purpose of excluding persons from employment, but for recommendation regarding treatment, and for adjusting the worker's duties to his physical and mental shortcomings. As a result of this care, his productiveness will remain at a maximum commensurate with his abilities without endangering himself or causing injury to others.

Every plant, whether large or small, should have a well organized dispensary where ample surgical, emergency, and preventive medical work can be conducted. Prompt and effective treatment of hemorrhage, heat exhaustion, stroke, shock; and the use of artificial respiration, when indicated, are important emergency measures.

All are agreed that injuries sustained while at work should be cared for in the dispensary, although opinion differs as to the extent of medical care. Personally, I believe that medical work should be limited to preventive measures and the detection and treatment of occupational diseases.

The industrial physician, however, can be of great assistance in advising workers concerning the correction of defects.. Workers should be encouraged to consult the physician concerning medical matters pertaining to himself or to members of his family that may be causing him worry. Worry is a foe to health and efficiency.

This, however, is only a small part of the function of a plant medical department. Its work must be extended into the plant. A constant check upon the efficiency of sanitary and safety devices used to prevent the occurrence of industrial health hazards must be made. The department must be alert to the effects of fatigue, harmful fumes, gases, and dusts, and of defective ventilation and illumination. The industrial physician should be able to advise with other industrial experts, such as safety, ventilating, sanitary, and illuminating engineers concerning means and methods of assuring adequate protection against the insidous causes of bodily damage,

These advances for the preservation of the worker's health and efficiency cannot be accomplished unless the physician is given ample authority to enable him to attain results. He should be made responsible directly to the management.

The small plant can be assisted in this work. Many such plants in Philadelphia and, no doubt, in certain other cities, are maintaining a properly supervised medical department. The small plant has found difficulty in securing the medical and nursing service which it needs in the limited amount of service which is required for its employes at a cost which is justifiable.

In Philadelphia, under the supervision of the Philadelphia Health Council and Tuberculosis Committee, groups of small plants have been organized, and are given ample medical supervision at a cost not out of proportion to that which large plants are obliged to pay. Small plants, having from 25 to 500 employes each, located reasonably near together, and providing a total of 1000 employes, make up a unit. Each plant, sharing in this unit service, provides a clinic room with necessary equipment and is supplied with medical and nursing service, first-aid instruction, and the sanitary supervision which is required for its employes. A trained nurse, selected for her ability to do industrial work, is assigned to each unit and divides her time among the plants in her unit. A minimum of three hours of health work for each 100 employes each week is provided. An industrial physician can do the medical work in two such units. There is no limit to the number of units which can be formed as

small plants realize the possibilities of such a joint arrangement. A difficulty arises in procuring industrial physicians. However, as the work grows arrangements can be made with the universities to give selected courses in industrial hygiene to the physicians chosen. The courses can be given on a part-time basis. It is the consensus of hygienists that the best work can be accomplished by full-time physicians interested in industrial work and willing to specialize along these lines.

The work in Philadelphia at present is well supervised. Should the Health Council give up this supervision, a committee of hygienists and industrial physicians can be organized to supervise permanently the service and be available for consultation work. Small plants at present pay only $4.50 for each employe a year, the remaining costs being covered by the Health Council as a part of its demonstration work. Plants can procure the same service under a permanent commercial arrangement for from $6.00 to $8.00 for each employe.

Another phase of this work which interests managers of small plants concerns the lower insurance rates obtainable where medical services are adequate. Again where the company's insurance is carried by a commercial insurance company the physician receives a professional fee for compensation cases treated, the benefits of which ultimately accrue to the plant in reducing the amount the plant pays for medical service under the unit plan.

An added advantage in treating the patient in the plant lies in the conservation of time. Instead of consuming most of a morning or afternoon in sending an injured employe out for treatment he may be treated in the plant dispensary in a few minutes.

These joint services have been demonstrated to be practicable and are recommended to all small plants.

Plants interested in the possibilities of this service are invited to ask, through the Department of Labor and Industry, for further detailed information.

MEDICAL SERVICE FOR INDUSTRIES EMPLOYING FROM FIVE HUNDRED TO ONE THOUSAND WORKERS

By J. A. Turner, M. D.

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Industries in this country, employing a large number of workers, for the most part, have provided full-time medical services for their employes. In some instances considerable money has been expended for quarters, equipment, and personnel, the facilities thus provided being equal to the best equipped hospitals. On the other hand, there are a considerable number of industries, particularly smaller ones, employing from 500 to 1000 workers that have not gone so extensively into medical service as the larger concerns. Many of the smaller plants have apparently contented themselves with either a part-time physician, physician on call, nurse, employe with some training in first aid, or no medical service at all.

It would seem that employers of small groups, ranging from 500 to 1000 workers, without adequate medical service, have not been fully convinced that industrial medicine can be economically applied to small groups or that the benefits to be derived from such a service will justify the expenditure of sufficient money to install an adequate service.

The object of this paper is to show by actual experience how a full-time medical service for a small group proved to be a paying investment by materially reducing absenteeism from both accidents and sickness, and by increasing the efficiency of the employes suffering with complaints that were not severe enough to cause loss of time from work.

Certain suggestions will be offered also, which it is hoped will aid industrial managers to provide adequate medical service for their employes.

SAFETY HAS PROVED ITS WORTH

The history of industrial medicine is indeed very interesting. On reviewing this history one cannot help being impressed by the rapid progress that has been made, especially during the past two decades. This progress is conclusive evidence of the value of industrial medicine, for otherwise it would long ago have been dis-

carded. Industrial managers are not apt to retain a department that is not a paying proposition.

During 1911 the National Safety Council was organized and thru its efforts safety ideas have rapidly spread from the industries to the people in all walks of life. It is doubtful if any educational movement has ever obtained or received such response and cooperation of the whole nation as has the "safety first" idea. The lives saved and the total disability prevented have been tremendous. Safety has proved its worth and will continue to thrive.

PREVENTIVE MEDICINE IN A DEVELOPMENTAL STAGE

What has been and is being accomplished by safety work in preventing injuries to industrial workers can and will be done for sickness among them. Preventive medicine is rapidly progressing, but is still in a developmental stage. It has tremendous possibilities and is more and more receiving the attention of the medical profession and progressive industrial managers. All employers of labor and the general public will soon become as completely sold on sickness prevention as they now are on accident prevention.

As in the safety movement, the logical place to develop preventive medicine is in the industrial plant, and the knowledge obtained from the industry will rapidly spread to the general population.

The principal reason why industry is the place of choice for developing preventive medicine lies in the advantage of having a group of persons under the doctor's constant supervision for at least eight hours a day. It is impossible for the doctor in general practice to have such a group under so complete control as obtains in industry. The doctor in industry is in a position to study diseases, in their incipiency. This is a tremendous advantage when it is considered that the general practitioner seldom sees a patient before his illness is well developed and has progressed to the state where the patient is suffering. By the time he consults his family physician the chances are that the disease is so well established that all his physician can do is to apply such therapeutic measures as in his judgment will give relief and aid nature in bringing about a cure. This is curative medicine and not preventive medicine.

When industrial managers can be convinced that preventive medicine can best be developed in the plant, and that it will materially reduce absenteeism and increase the efficiency of all their employes, and in this way pay even larger returns than has safety, then will they give preventive medicine their whole-hearted support.

SICKNESS CAUSES MORE LOSS OF TIME FROM WORK THAN DO INJURIES

Sickness, among industrial workers, causes more loss of time from work than do injuries. Sickness also causes more disability and loss in production than do injuries.

It has been found by various investigators that sickness may cause from five to twenty times as much absence from work as do injuries. In our plant, which manufactures metal goods, sickness causes between four and five times as much loss from work as do injuries.

The ratio of injuries to sickness depends upon the kinds of industries. For example one would expect a much higher accident rate in the metal trades than in the mercantile industry, for the reason that in the metal trades there are more opportunities for accidents.

The records kept in our plant for the past seven years show that 42 per cent of the hospital treatments were for injuries and 58 per cent for sickness.

Sickness among industrial workers causes a tremendous loss each year. It has been shown by various investigations that there is an average loss of 9 days per man per year. This means to the manufacturer an annual loss of about 405 million work days, and to labor a wage loss of over two billion dollars.

ABSENTEEISM NOT THE ONLY CONSIDERATION

As mentioned before, sickness causes from five to twenty times as much loss of time from work as do injuries. This, by the way, only partly measures the cost of sickness to industry.

By far the greater number of sick cases among industrial workers are minor in nature and occasion no loss of time from work. Our experience shows that 86 per cent of the requests for medical treatment are for minor ailments; complaints that are not severe enough to cause the employe to cease work.

It would be a very difficult task to determine the cost of these minor complaints among our employes, as the employes do not work upon a piece basis; yet it is known that these complaints do materially affect both the quantity and quality of production. The fact that 86 per cent of the sickness among our employes are minor complaints, leads one to believe that the loss to the company equals, if not exceeds, the total days actually lost by the remaining 14 per cent of "lost time" cases.

Minor or "no lost time" sickness, therefore, becomes an economic problem which industrial managers would do well to consider. Babson in a recent newspaper article stated that industry is overcrowded. This statement is taken to mean that there are too many

industries manufacturing the same or similar products. If this be the state of affairs it would indicate that manufacturers must find further means of reducing the cost of production as one of their efforts to produce goods which they can market for less than their competitors. Modern machinery and improved efficiency methods will do much in this respect, but if the manufacturer disregards the importance of the health of the workers, he overlooks one of the most vital factors in production costs. Workmen with impaired health cannot operate machines nor carry out the efficiency methods as effectively as tho they were in good health.

ABSENTEEISM ON ACCOUNT OF SICKNESS REDUCED MORE THAN FIFTY PER CENT

The tremendous loss to industry from absenteeism on account of sickness can be reduced more than one-half. This is what we succeeded in doing with our absenteeism rates in the Laidlaw Works of the Worthington Pump and Machinery Corporation.

An interesting fact to managers of industries employing a similar number of workers is that this reduction in absenteeism was accomplished with a plant population of approximately 700.

During 1925, the first year for which we have absenteeism records on account of sickness, and the first year of full-time medical service, our employes lost on an average 6.1 days per man per year. During 1926, the second year of full-time service, the absenteeism rate was further reduced to 4.4 days per man per year. Compare this with 9 days, which is the average number of days lost by the general industrial population, and it will be seen that we cut our loss of time for sickness more than one-half. This means a saving of 3220 work days. If the average wage of the employes is five dollars a day there was a wage saving of about sixteen thousand dollars. The saving to the company was probably equal if not in excess of the wage saving. This is but one item by which the doctor proves the value of medical service to industry. Other items will be mentioned later.

CLASSIFICATION OF SICKNESS AMONG INDUSTRIAL WORKERS

Sickness among industrial workers is classified as either occupational or non-occupational. Practically every industrial process has either one or more health hazards, the etiology of which can be definitely traced to the industrial process. Sickness, the cause of which is unassociated with the process or conditions under which the work is done, is classified as non-occupational disease.

Occupational diseases are much less prevalent than non-occupational diseases. The former are much easier to prevent than the latter. The doctor in industry is in a position to study each process, to determine the nature of the hazards inherent to each, and to devise and institute the best means for prevention.

The problem of preventing occupational diseases is usually and effectively solved by mechanical devices. These devices prevent the harmful substances from being either inhaled, ingested or, from coming in contact with the surface of the body. Instructions in the handling of harmful materials prevent accidental exposure of those working at, or near the hazardous occupation. Susceptible individuals are placed at other work.

Non-occupational diseases, on the other hand, are much more difficult to prevent because preventive measures for these diseases have not been so thoroughly worked out as have those for specific occupational diseases. Furthermore, the application of preventive measures to non-occupational sickness is much more difficult due, in large measure, to lack of knowledge and cooperation on the part of the workers themselves. The success of preventive medicine, therefore, is in proportion to the education and cooperation of the workmen. The doctor is the only person who can successfully transmit this information to factory workers.

ABSENTEEISM ON ACCOUNT OF ACCIDENTS REDUCED MORE THAN FIFTY PER CENT

In this article much more has been said about sickness and its prevention than about accidents because, in general accident prevention is receiving much more attention than sickness. Accident prevention has been pretty well sold to industrial managers while sickness prevention has yet to be sold.

Both accident and sickness prevention are of equal importance and interest to the industrial doctor. It is within his power to reduce the frequency and severity of these, the greatest cause of absenteeism and decreased efficiency.

In our establishment, during the first year of the medical department, the workmen lost on an average of 2.1 days per man per year on account of accidents. What the accident rate was before this period we have no records to show. Each succeeding year this rate has been gradually reduced until for the last two years the employes lost on an average but one day per man per year. This is a reduction of more than one-half. Wage saving to the men in this instance, based on the same method as for sickness, is approximately four thousand dollars.

ABSENTEEISM ON ACCOUNT OF ACCIDENTS NOT THE ONLY CONSIDERATION

As with sickness, so with accidents, the actual days lost are not the only factors to consider. According to our records, 98.2 per cent of the injuries were minor in nature and occasioned no loss of time. Injuries, regardless of how trivial, are potential sources of infection unless properly cared for. An employe with a minor injury is not able to produce so much nor so well as before the accident until the injury has completely healed, which may be from a few days to a week or more. Minor injuries like minor cases if illness materially decrease efficiency. This loss to the manufacturer is difficult to estimate, but the loss probably amounts to a great deal more than the company has any idea of.

SUGGESTIONS FOR EFFICIENT MEDICAL DEPARTMENT

Briefly, there are a few suggestions which industrial managers might well consider when contemplating the installation of a medical department. These are: personnel of the medical department, quarters and locations of dispensary or hospital, and equipment of the department with facilities necessary for both medical and surgical cases of all kinds.

THE SELECTION OF THE DOCTOR MOST IMPORTANT

The most important consideration is the selection of the doctor to head up the medical department; for upon the doctor depends the success or failure of the venture. The doctor should be a graduate of a class "A" college, with at least one year's internship. He should have had one or more years of experience in general practice. He should be endowed with tact and good judgment so that he can properly approach and win the confidence of factory workers. The doctor should have a special training in industrial medicine, for this is a very important qualification, and lastly he should have practical experience in preventive medicine.

Too often the industrial manager when selecting a doctor fails to consider the qualifications the doctor should have. To him any doctor who can be employed for the lowest fee is just as good at wrapping fingers as another who demands a much larger salary. This is true if a finger wrapper is all that is wanted. It's a very grave mistake to employ a mere finger wrapper or incompetent doctor at any price. Industrial medicine has developed into a specialty and special training is just as essential in this as in any other specialty in the medical profession. A physician, well trained, and capable of making the medical department a paying proposition can and does command a good salary.

Make the doctor responsible only to the plant manager. A frequent mistake is to place the medical department under some other department, usually the employment or personnel department. This is done because there is not a proper appreciation of the importance of the medical department; when as a matter of fact, the medical department is just as important as any other department and more so than some departments.

Many good industrial doctors have given up their positions because they have had to be responsible to persons incompetent to pass judgment on their work. Medical men are chuck full, and rightly so, of professional pride. A layman, on the other hand, knows little or nothing about the science of medicine, but dearly loves to impose his opinions upon the plant doctor. If this layman has supervision of the medical department, sooner or later, friction is bound to develop. In some plants this state of affairs has been eliminated. There should, however, be the fullest cooperation between the medical and employment departments as they have much of mutual interest.

FULL TIME MEDICAL SERVICE THE MOST DESIRABLE

The employment of a physician on a full-time basis is always to be desired. It has been shown that in a plant employing about 700 workers absenteeism for both accidents and sickness was reduced more than 50 per cent. This could not have been possible under a part-time service. There is always plenty of work in a plant of this size. If the workers have confidence in the medical department from 10 to 15 per cent of them will be daily visitors to the hospital.

The results obtained in our plant by full-time service show that there is a yearly saving to the employes of approximately twenty thousand dollars in wages. This does not take into consideration the 4000 work days saved to the company nor does it consider that the efficiency of the workmen was materially increased because their minor injuries and illnesses were promptly cured before becoming severe enough to cause them to cease work.

In states where there is a State Industrial Commission charges can be made for care of the injured and for certain occupational diseases. The fees received for this work, if endorsed over to the company, will go a long way toward defraying the expenses of the medical department. If these cases are taken care of by outside physicians the fees do not return to the company nor has the company any control over the amount. If the fees are in excess of the basic rate for the classification, it is bound to kick up the premium rate paid to the commission or insurance company.

PART-TIME MEDICAL SERVICE

A part-time physician labors under a handicap chiefly because the time he can devote to the employes is limited. Another disadvantage lies in the fact that the part-time doctor is compelled to obtain additional compensation by building up an outside practice. Under such conditions it is possible that he will soon realize that the compensation received from the company is a sure thing while his compensation from outside practice will be in proportion to the attention he devotes to it.

In plants employing less than 500 men, it may not be advisable to employ a full-time physician. It, however, might prove an excellent idea to employ a full-time doctor and add to his duties the employment, welfare, and insurance departments.

Probably the best plan for part-time medical service for the real small plants would be for them to pool their interests and employ a physician to devote his entire time to their employes. Each plant in this group should equip a dispensary and employ a full-time nurse. The doctor's office should be conveniently located to the plants. His office should be equipped with X-ray, physical therapy apparatus, and other equipment essential to rendering good service; the cost of the equipment to be shared by the group.

DENTAL SERVICE FOR EMPLOYES

We are realizing more and more the value of dental service for factory employes. A vast majority of factory workers neglect their teeth. A large number of incapacitating diseases is due to infected teeth and gums and unless we remove these foci of infection the doctor cannot cure these patients. Our experience has shown us that the dental service is a very important factor in preventive medicine.

The dental service should be confined to extractions, treatments, and generally prophylaxis. Other dental work is seldom as urgent and should be done by the family dentist.

In conclusion, it is desired to leave the reader with the impression that industrial medical service is an essential factor to industrial progress.

Originally the chief function of the doctor in industry was to give proper care only to the severely injured employes. It was only natural that with the entrance of the doctor into industrial plants, there should be opened up a newer and broader field of medical endeavor. This is manifested chiefly by recognition of specific health hazards and the tremendous waste to industry on account of non-occupational sickness.

Progressive industrial physicians are now endeavoring to interest their officials in providing medical service for all sickness among

their employes. The present conception of industrial medicine is based upon three fundamental principles: prevention, cure and education.*

The human race is afflicted with many, many ailments, about 85 per cent of which are not severe enough to cause loss of time from work. The tendency has been in the past to neglect these in favor of cases of illness causing loss of time. Many of our industries have not fully grasped the significance of these minor complaints and the effect they have upon production costs.

Absenteeism on account of sickness is greater than many people are aware of. The loss from this cause has been variously placed at from five to twenty times greater than the time lost on account of injuries. This in itself should be evidence enough to convince industrial managers that it would be to their advantage to reduce this loss. If industry will join forces with the doctors, this tremendous loss can be reduced to the minimum. It has been shown in this article that even smaller industries can provide adequate medical service for their employes and that this service will prove to be a paying investment.

*Practice of Preventive Medicine, Turner. J. A., American Public Health Journal, Nov. 1927.

MEDICAL AND SURGICAL SERVICES OF A LARGE PLANT

By A. W. Colcord, M. D.,

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We may conveniently divide the medical and surgical services of a large plant into:

I Prevention of Accidents
II Prevention of Sickness
III Treatment of Sickness
IV Treatment of Accidents

I PREVENTION OF ACCIDENTS

While it is not the work of the company surgeon or medical director to prevent accidents, he should be an active member of the general safety committee of the plant. Safety work is team work. It means cooperation of the management, superintendent, foreman, safety engineers, and the local committee of each department.

Some of the means that we have found most effective in accident prevention are:

1—Safeguards, such as railings about stairways or platforms and about the box switch where high tension currents are handled; covering of gears; wearing of clothing that will not catch in machinery; keeping passageways clear; orderly arrangement of material; keeping ground clear of boards with protruding nails; keeping floors clean, especially from oil or grease, or other slippery material; keeping mills well lighted; requiring men to wear goggles where flying material creates an eye hazard; clearing passageways where there is not clearance between cars and walls; guarding high tension wires and generators; using air pump and hose mask where men must enter chambers containing poisonous gases; keeping lights, sparks, matches, etc., away from points where inflammable gases may escape; furnishing wooden-soled shoes where men must walk on hot floors; wearing respirators where men must work in irritating or poisonous dust; wearing colored glasses to protect from very bright light as in acetylene burning, electric welding, or looking into an open hearth furnace.

2—Warning signals, such as

NO CLEARANCE FOR MAN,
NO SMOKING,
NO LIGHTS OR MATCHES,
HIGH VOLTAGE WIRES,
R. R. CROSSING—LOOK OUT FOR ENGINE.

3—Instruction by foreman to a new employe of the special hazards of his work, the safety rules that he must obey, and the heavy penalties for violation of the safety rules.

4—Constant watching by every foreman over the safety of his men; reproofs to the careless; instruction in safe practices; and warnings against hazards.

5—Safety bulletins in conspicuous places through the mill—frequently changed.

6—Safety education through the plant paper, lectures, motion pictures, books, magazines, radio, pageants, safety weeks, safety classes, etc.

7—Prizes and trophies for fewest lost-time accidents in a competition between mills or departments. This plan has been proved to be very effective in the various plants of the Carnegie Steel Company in the last three years. With an average daily force of 3300 to 3600 at the Clairton plant, the lost-time accidents have been 59 in 1925; 45 in 1926; and 25 in 1927.

II PREVENTION OF SICKNESS

"Better Health in Industry" is a legitimate child of Safety First, but until recent years it has been a much neglected one.

The activities of the Clairton plant for keeping the worker well may be divided as follows:

1. Mill sanitation.
2. Prevention or minimizing of occupational disease hazards.
3. Personal hygiene of the employe and his family.
4. Health education of the worker.
5. Examination when employed.
6. Examination when reporting for injury or sickness in the mill.
7. Observation of men by foremen and superintendents—noting loss of efficiency or signs of beginning illness.
8. Checking up lost-time cases through illness.
9. Follow-up work after all examinations—seeing that teeth, tonsils, eyes, etc., are given proper attention, that no illness is neglected.
10. The work of the welfare nurse under the direction of the medical director.

11. An intelligent and efficient board of health in the mill town.
12. The teaching of health in the schools with school examinations and follow-up work by school doctor and nurse.

Mill sanitation has reached a high state of perfection in Pennsylvania, thanks to our sanitary code, our efficient inspectors, and the hearty cooperation of our large corporations.

The drinking water of the Clairton plant comes from two sources:

1. Driven wells, several hundred feet deep, properly cased off to prevent contamination by surface water, or the shale near the surface.

2. The city water—Monongahela River water neutralized with lime, and treated with alum to precipitate the soluble organic matter. It is then settled and filtered through several feet of sand. All water used by the men in the mills is examined monthly by a trained bacteriologist. A good drinking water should be; palatable, free from pathogenic bacteria, free from harmful chemicals, clear and attractive in appearance, convenient of access to all men in the mill, and cool or cold.

The prevention of occupational disease resolves itself into two problems:

1. Keeping the hazard away from the man.
2. Keeping the man away from the hazard.

Just as the sailor need not fear the charted rock, so the mill worker can avoid the known danger. In steel manufacture and in the production of coke and its by-products there are occupational disease hazards, plenty of them, but by careful study and earnest, painstaking effort, they have been reduced almost to zero. In both our steel works and coke works, occupational disease is almost unknown. In the Homestead works, a record was kept for eight years of all persons taken sick at the plant. A careful analysis of the 15,000 cases recorded shows about the same proportion of the various kinds of sickness as in Cabot's general clinic in Boston.

The welfare nurse can do much to promote the health of the worker and his family. Among her most important duties are:

1. To visit the sick or injured in an industrial community whether attended by the company doctor or others in the town. This she does under the direction of the attending physician.

2. To follow up and investigate cases of absence from work from supposed illness of the worker or his family.

3. To make a sanitary survey of the homes of the workers reporting conditions to the medical directors or to the proper authority,

giving meanwhile advice and instruction to the family in matters of personal hygiene, home sanitation, and home economics.

4. To form classes of housewives and mothers for such teaching.

5. To form classes of girls from 10 to 16 years of age for the teaching of matters of health.

6. To carry on instruction in the homes of expectant mothers. This can be done in cooperation with the family physician or with the midwife employed by so many foreigners.

7. To keep a list of babies less than one year old and make regular visits to their homes, instructing mothers in the food, clothing, and general care.

8. To investigate cases of destitution and report them to the welfare department; aiding in the distribution of supplies, etc.

9. To see that patients needing such service attend tuberculosis and other clinics. To search out patients who should attend schools for blind, deaf mutes, feeble minded, etc., and to assist in getting them placed therein.

The welfare nurse should be a person fitted by nature and training for her work; and thoroughly in love with it.

III TREATMENT OF THE SICK

We group our sick employes as follows:

1. Those taken sick while at work.
2. Those taken sick at home, cared for by the family doctor and sending word to the superintendent.
3. Those absent and found sick on investigation.
4. Those found sick on examination for employment.
5. Those employes found sick by periodic or other examination by plant physician.

For the purpose of classification, we may define a "sick man" as one too sick to work. He needs care and treatment in his home or in a general hospital. All other forms of illness permit the man to remain at work under proper supervision. He may require a change of environment or removal from some special hazard; or he may need a change of occupation on account of fatigue or strain. Teaching a man that a slight ailment must not be neglected is a part of his health education. Here is a splendid opportunity for real service by the plant physician and welfare nurse. To give this treatment is not so important as to see that it is given.

The strongest argument in favor of periodic examination of all employes is that we may discover disease in its incipiency and see that proper treatment is instituted before irreparable damage is done. In our employment examination we want the man to realize that it is more for his good than for the company's. If we find the applicant too sick to work we advise and help him to get proper treatment. If his illness is slight and does not prevent our employing

him, we still advise him as to his treatment and insist on his getting it. In the Clairton mills, those taken sick at the plant are given temporary treatment at our emergency hospital, and if further care is needed, they are referred to their family doctor.

IV TREATMENT OF ACCIDENTS

The Clairton Emergency Hospital is located in the mill yard not far from the open hearth and blast furnace, yet with this handicap of dust and smoke, it is always spotlessly clean within. There are on the main floor five rooms: waiting room, redressing room, operating room, ward, and nurse's room.

A hallway serves for desk, cupboards, and filing cabinet. There is a bathroom which is also fitted as an X-ray dark room with developing tank.

In the waiting room are a desk and white steel chairs.

The redressing room contains electrically heated water, utensil and instrument sterilizers, table of dressings, kitchen sink type wash basin, foot bath, sink, and medicine cupboard.

In the operating room are operating table, autoclave, instrument cabinet, instrument sterilizer, table of sterile dressings, pathological table with microscope, X-ray machine, and eye table.

In the ward are three beds, diathermy machine, pulmotor, oxygen tanks, gauze cutter, work bench, and refrigerator.

The nurse's room has a rug, dresser, bed, skirt box, three tables, electric hot plate, steel lockers, and rockers.

The first three named rooms have vitrolite wainscot, and terrazzo floors. All rooms have white enameled washable walls, and the last three have floors and mop board of battleship linoleum. The basement contains furnace for steam heat, morgue, storage rooms, and cupboards for bulky supplies, records, crutches, etc., a shower bath, and toilet. The whole hospital is well lighted, heated, and ventilated.

There is one surgeon and his assistant, one or both on call during the whole twenty-four hours. Three graduate female nurses work eight-hour turns and are relieved one day each week by the welfare nurse who spends five days in the district among the families of employes.

Dressing hours are from 10 A. M. to 12 M. and 9 to 10 P. M. on week days, and 12:30 to 1:30 P. M. and 9 to 10 P. M. on Sundays.

During 1927, more than seventy patients were given attention every twenty-four hours on an average. This included redressings.

The plant extends about three miles along the Monongahela River. The men are employed in about equal numbers in the steel works and the by-products coke works. The hospital is near one end of the plant, and is connected with all parts of it by good roads. An

ambulance, kept in the plant, is on call at all times, and cases can be brought from the most distant point of the plant in fifteen minutes. This ambulance is also used for bringing men for redressings from the mills or from nearby homes. This is done during the dressing hour by schedule so that men are kept from their work a minimum length of time. The work of the ambulance is supplemented by automobiles during the dressing hours. Men are supplied with trusses, arch supports, goggles, colored glasses, finger cots, crutches, elastic bandages, artificial limbs and eyes, braces, binders, and such other appliances as will hasten recovery from injury, or supply the needs of the cripple. Those cases needing care in bed, or major operations are sent to the Carnegie Wards of the Western Pennsylvania Hospital in Pittsburgh. Men returning from the general hospital are again under the care of the plant surgeon. At the earliest possible moment they are returned to some kind of selected work—"occupational therapy." This is regarded as one of the most important parts of his treatment and shortens the period of "loaferization." This period is fraught with danger and if not cut short in case of those severely crippled may lead to the last and hopeless stage of "pauperization."

More than two thousand wounds are cared for at our emergency hospital yearly. During the past ten years, less than $\frac{1}{4}$ of 1 per cent have become infected under our care. It is true, a number of delayed wounds come to us each year and about one-third of these are already infected. Most of the infected ones have been daubed with iodine, not only increasing the danger of infection, but usually burning an area about the wound. By constant education of our employes through the years, we have about eliminated the iodine from the lockers and have reduced the number of delayed cases to a small fraction of what they were a few years ago. The teaching that every industrial wound is infected has done much harm. If we but study nature's methods of combating infection and work in harmony with them, we can treat industrial wounds by the thousand without clinical infection. Nature's principal defenses against wound infection are the white blood cells and the germicidal lymph, both poured freely into every wound. Iodine, bichloride of mercury, carbolic acid, and many other antiseptics inhibit leucocytosis, while chlorine, alcohol, and a few others favor it.

Briefly, our wound treatment is as follows:

1. Thorough cleansing of the surrounding skin with soap and water, then with ether and alcohol, shaving if hairy.

2. Mechanical cleansing of wound with sterile gauze held in long handled forceps. Fingers must never come near a wound from start to finish. Meanwhile, the wound, if extensive, is irrigated with sterile water from a pitcher from a moderate height. If greasy, ether

is used in the wound while pieces of dirt are removed with forceps. Lastly, it is flushed with Dakin's solution.

3. Debridement—trimming away shreds of tissue that will probably die.

4. Hemostasis bleeding is controlled by the proper method in each case—ligation, suture, pressure, etc. The tourniquet is seldom used.

5. Suture when needed—subcutaneous, if deep by No. 00 catgut, skin with skin clips, silkworm gut, or horsehair.

6. In crushed hands and fingers, where every bit of blood supply is needed to keep parts alive, suturing is often delayed until circulation is well established, then debridement and suture.

7. Splints and slings are used in all badly wounded fingers, hands, and arms.

8. Nearly every sutured wound should have drainage; a sterile rubber band does well for all but the largest wounds.

9. A constant wet dressing is important to promote drainage.

If our work has been done well up to this point the choice of any of the wet dressings used by the best surgeons is not so important in sutured wounds. A 1/32 hyclorite dressing does very well and in this strength the skin needs no protection. Our series of 10,000 wounds with two clinical infections reported four years ago were treated with Ochsner's Fluid (alcohol 25% and saturated solution of boric acid 75%).

Open wounds where there is extensive laceration and destruction of tissue, do best in my experience with sodium hypochlorite 1/2%. After our mechanical debridement we need the chemical debridement to complete our work.

10. All gauze is removed from or placed on a wound at every dressing with long-handled forceps and never with fingers. The technic is 90 per cent—the antiseptic only 10 per cent.

11. Dressings that stick are loosened with hydrogen peroxide followed with Dakin's solution. Wounds seldom need washing after the first dressing.

12. Infected wounds are dressed last. The surgeon, after once touching the patient touches nothing else in the room. Everything is handed to him by the nurse, even the gauze and soap he will use to scrub his hands after he finishes the dressing.

13. Contusions with or without abrasions are given a constant wet dressing of equal parts of glycerin, alcohol, saturated solution of magnesium sulphate, and water. Simple abrasions, if thoroughly cleansed do well with any mild antiseptic ointment as 5 per cent boric acid ointment.

SPRAINS

A severe sprained ankle is treated as follows:

1. Cotton or other splint with I. B. I. ointment for 2 days.
2. The glycerin, alcohol and magnesium sulphate solution for three days.
3. Strapping one week.
4. A. C. E. elastic bandage with daily heat and massage until well. Crutches are used with no weight on the foot from one to four weeks. Weight-bearing is gradually begun always stepping squarely on the foot no limping. A high shoe with heavy sole is used for all walking.

In milder sprains the above measures are used according to the needs of the case. If the ankle tends to remain weak after one month a Golden's ankle brace is used.

Other sprains are treated on the same general principles.

Sprains of the wrist about equal in frequency those of the ankle. All but the mildest are kept on the splint well into convalescence and the same remedies applied.

All severe sprains should be X-rayed as joint fractures are frequent and their diagnosis is important.

One of the most difficult things to diagnose and treat is lame back. We must not go to the extreme of calling all lower back lameness "lumbago," but we must also be careful not to credit the story of every man that comes with a tale of lifting and sprain. A good working classification is as follows:

1. Real sprain of the back which usually means a tearing of some fibres of the erector spinae from their attachment (McMurray).
2. Sacroiliac sprain which probably means a tearing of some fibres of the ligaments about the joint.
3. Sacroiliac subluxation—usually from some congenital weakness.
4. Slipping of fifth lumbar vertebra forward on the sacrum—a sloping sacrum and a weak ligament.
5. Impinging of transverse processes of last lumbar on top of sacrum.
6. Congenital malformation of arch of last lumbar (Magnusson).
7. True lumbago—probably a form of "muscular rheumatism"—due to focal infection elsewhere from teeth, tonsils, prostate, gall bladder, appendix, or intestinal putrefaction.
8. Osteo-arthritis of joints of spine—also probably due in most cases to focal infection.
9. Neuritis of spinal nerves or of those of lumbar or sacral plexus. This may be due to trauma, focal infection, or to pressure from subluxations.

10. Syphilis of cord, of bones of the spine, or of blood vessels of this region.

11. Referred pain from abdominal or pelvic organs—hemorrhoids, prostatitis, visceroptosis, constipation, new growths, etc.

12. Postural defects or habits, relaxed muscles of back, or exaggerated spinal curves.

13. Tuberculosis or other disease of bones of spine.

Acute strains of the back need rest in bed with support, and such remedies as the alkalies, salicylates, morphia, and hyoscine. Ichthyol, belladonna, and iodine ointment applied freely with strapping gives some relief. Later, some form of heat as infra-red, deep light theraphy, diathermy, or hot blankets followed by massage is useful.

Sacroiliac strains need support—such as a wide circular band of adhesive plaster or the diagonal plaster spica. I have used supporting belts and bands in subluxations with varying success. "Sacroiliac subluxation" has been a very much overworked term but we must not go to the opposite extreme of denying its existence.

Treatment of the other forms of lame back will, of course, depend on their cause. The most difficult cases are the mixed types where trauma is a factor of more or less importance, often hard to estimate.

Backs injured by a fall or a severe blow should be carefully examined for fracture and should be X-rayed. These fractures are often missed by the surgeon.

FRACTURES

Most ambulatory fractures are treated at the plant hospital. Those requiring bed treatment or operative work are sent to the Carnegie Wards of the Western Pennsylvania Hospital in Pittsburgh, service of Dr. Wm. O'Neill Sherman, Chief Surgeon, Carnegie Steel Company. Here, those fractures which offer much difficulty of reduction or retention are treated by the open method. Physiotherapy is begun early by specially trained attendants—using massage, active and passive motion, phototherapy, diathermy and other modern methods. A workroom where toys are made is a unique recent addition to these wards providing a very attractive and efficient form of occupational therapy.

At the Clairton emergency hospital, splints of woven wire, clear white pine, or plaster, are used as the occasion demands. Large sheets of malleable aluminum are cut into pieces of proper size and moulded into the desired shape with a wooden hammer on a sand bag.

Massage, active and passive motion, are begun early with physiotherapy, and occupational therapy later.

The X-ray is used in diagnosing practically all fractures and in checking up during treatment.

We have found the Thomas splint of both leg and arm to be extremely useful in preparing severe fractures of leg and arm for shipment to a general hospital. In fractures of ankle and leg, the Cabot splint is also very convenient for this purpose.

BURNS

All severe burns are sent to the Western Pennsylvania Hospital, Carnegie Wards, where the wax treatment is used, along with other appropriate measures, including skin grafting, splintage, etc.

Ambulatory cases are treated at the Clairton Hospital with wax or with a mild ointment. There has been much violent controversy about "remedies" in burns, and it seems to me much time and energy have been wasted thereby. The all important thing in burns is surgical cleanliness.

FIRST AID

In a compact mill with a well organized emergency hospital, easy of access and a good ambulance service, little first aid by laymen is needed or permissible. We feel that it is necessary to teach only the following: to stop hemorrhage, to transport the injured, to perform artificial respiration and other aids in asphysia, and to give first aid in the various forms of shock.

In my opinion, the teaching of many things to first-aid classes, including the treatment of wounds, burns, and fractures has had its disadvantages. It has made would-be doctors and has probably increased the number of infected wounds. In all compact plants the dressing station with its trained nurse or whole or part-time doctor is the only place where these things should be done and men should be trained to go there at once after injury.

CARBON MONOXIDE POISONING

In treating carbon monoxide poisoning, the following points are stressed:

Accurate diagnosis, using the Yant blood test, and studying symptoms. Many so-called gassed cases are really not that.

2. A study of the alleged source, testing the air if necessary.

3. Even mild cases should have rest, lying down with plenty of fresh air, and this continued for some hours. There are several recorded deaths due to violation of this rule.

4. Oxygen pushed to the limit and kept up long enough.

5. We must avoid letting the patient walk around, begin work too soon, or return to an atmosphere containing even a small amount of carbon monoxide.

6. Badly "gassed" cases should have oxygen at once, assisting respiration as needed with pulmotor or artificial respiration (Schaeffer method).

Parts of a large plant with special carbon monoxide hazard should have oxygen tanks always ready and first-aid men trained to use them until the ambulance arrives. Then it should be kept up on the way to the hospital.

7. Appropriate after-treatment.

*"Safety and it's allied branches, plant surgery, welfare and the health of the worker have been a blessing to American industry during the last twenty years. Those who started the safety movement in our steel mills and manufacturing establishments planned and builded better than they knew. Safety, as an integral part of American industry, is scarcely twenty years old at the present time, yet, those who have studied its application and progress can declare with absolute certainty that it has brought with it blessings alike to employer and employe. In addition to saving human life and limb, it has been a very vital factor in bringing our industries to their present high state of efficiency, and it has brought a better understanding between employer and employe than has ever been known in the history of the world. The safety director in cooperation with the plant surgeon, the employment manager, and the welfare nurse form a quartet which performs a service not only to the industry that employs them, but also to the entire community. In order to have a safe worker it is also necessary to have one who is healthy and whose home surroundings are conducive to contentment and happiness. It has, therefore, developed that safety, plant surgery, and welfare link themselves up to the workmen's entire life and seek to assist him not only to work safely while at the plant but so to plan his life that he may realize to the full life's greatest pleasures."

*Written for this article by John A. Oartel, Chief Safety Engineer, Carnegie Steel Company.

REVIEW OF INDUSTRIAL STATISTICS

PREPARED BY

THE BUREAU OF STATISTICS

THE LABOR MARKET

The employment reports for February hold some measure of encouragement to the depressed business man and to the unemployed worker. Reports from State Employment offices show a reduction of the ratio of applicants to available jobs; and reports from manufacturing establishments for the first time since May, 1927, show a gain in employment. The ratio of applicants for work to every 100 available jobs, as reported by State Employment offices, was reduced from 325 in January to 296 in February, a 9 per cent reduction. Total employment as reported from 807 manufacturing establishments in the state shows 4,600 more workers employed in February than in January, a gain of 1.8 per cent. While the gain in employment recorded for February does not nearly overcome the declines reported during the preceding eight months, it does serve to indicate that the end of the employment and business slump probably has been reached and that employment conditions are beginning to improve.

The employment office reports for February, 1928, show that a total of 8,754 persons applied for work during the month. The demand for workers, however, was small and only 2,961 jobs were reported as available. The State Employment offices were instrumental in securing jobs for 1,528 men and 665 women during the month. More than half of the jobs secured for men were for workers in the unskilled labor group. This is a happy circumstance, since it is admittedly difficult for unskilled labor on its own initiative to secure employment during dull times; and after all, it is this class of workers that should receive most attention from the employment viewpoint during periods of depression. In order to support his family it is necessary that the average unskilled worker have regular employment during any era, regardless of whether it be one of prosperity or depression.

The demand for workers was small in nearly all industry groups. In the clothing and textile industries, there was a good demand for women workers. In most other industries the situation was about the same as in January, and there were more than two applicants ready to fill every job available. Many plants, it is true did increase their forces during the month, but there have been so many workers furloughed in all industries during recent months that

there was little need for employers to call on State Employment offices for assistance in filling any job open.

Reports from the nine cities in which full-time State Employment Offices are maintained show employment opportunities were more favorable in the Harrisburg district than in any other section of the state. In Altoona, Johnstown, Reading, and Scranton less than 100 open jobs were reported so that true comparisons of job opportunity rates in these cities cannot be made. It is worthy of note, however, that employment conditions have shown improvement since last month in Altoona and Johnstown, but in Scranton and Reading unemployment has become more widespread. According to the reports submitted, Reading offers least chance for employment of any city in the state. Graded according to the opportunity for employment afforded through State Employment offices in February the nine cities rank as follows: 1. Harrisburg, 2. Philadelphia, 3. Erie, 4. Johnstown, 5. Altoona, 6. Allentown, 7. Pittsburgh, 8. Scranton, 9. Reading.

EMPLOYMENT, WAGES, AND HOURS WORKED

The 1.8 per cent gain in manufacturing employment reported for February was spread fairly well throughout all industry groups. The metal, textile, and lumber groups showed the largest gains. In addition to this gain in employment, wage payments and average earnings of workers in most of the 807 plants reporting during February were much higher than in January. Total wage payments were 8.3 per cent higher than in January, and average earnings were 6.4 per cent above the January average. This gain in wages was due in part to increased operating time in February over January.

The season of inventory taking in many plants occurring during January resulted in greatly reduced earnings in many industries during that month. The February gains in earnings are therefore little more than seasonal, although in most instances they seem greater than those shown in the January-February report for 1927. The February employment level is approximately 10 per cent below last year, and the wage level is about 4 per cent less. A gain of 9.7 per cent in hours worked in February over January is shown in the reports submitted by 473 firms. Operations in the metal products, automobile, silk, confectionery, glass, furniture, wooden box, and paint and varnish industry groups show decided gains.

Considerable improvement was shown in blast furnaces, but operation is still far below normal. Average weekly earnings for steel mill workers in February were the highest for some time. The stove and furnace group shows marked improvement after a very

bad month in January. Radio and electrical supplies showed continued improvement.

Automobile plants were busy and one firm employed more than 1,000 new men during February. Railroad car repair shops were busier than in January, but employment continued to fall off slightly.

Earnings of silk mill workers were much higher than in January. Knitting mills showed spotty conditions. Some mills were working overtime while others were working only 2 days a week. However, business seemed generally improved over January. Employment in the women's clothing group was seasonally higher.

Glass manufacturers, especially plate glass, reported improved business. Earnings for nearly all plants were much higher than in January.

Most furniture factories were operating nearly on normal schedule and the volume of orders was reported as comparing favorably with last year.

Construction employment continued its downward winter trend during February. An employment decrease of 15.5 per cent was shown. The level of construction employment is approximately 25 per cent lower than the level for February last year.

While there was no phenomenal gain in employment reported from any industry group during February, the reports seemed to carry a more hopeful and confident tone than those for the two or three months preceding. The considerable increase in wages reported for February has a heartening effect.

INDUSTRIAL ACCIDENTS AND COMPENSATION COSTS

During February, 1928, the Bureau of Workmen's Compensation received reports of 148 fatal and 11,912 non-fatal accidents that occurred to workers during the course of their employment. Compared with February, 1927, this is a decrease of 36 fatal and 1,189 non-fatal accidents, or reductions of 20 per cent and 9 per cent respectively. The accident record for the first two months of 1928 compared with the record for the same period in 1927 shows a decrease in 1928 of 42 fatal and 3,711 non-fatal accidents, reductions of 11.9 per cent and 13.4 per cent respectively. Just how much of this accident decrease can be attributed to reduced exposure to accidents on account of present unemployment cannot be measured definitely. However, since the majority of estimates of present unemployment are well in excess of 10 per cent, it may be assumed reasonably that the greater portion of the recent reduction in accident totals is due to unemployment, and consequently to reduced exposure to accidents.

The total of 148 fatalities reported during February is 16 less

than the total for January. Sixty-six, or 45 per cent, of the February fatalities were reported from coal mines; 39 from anthracite mines and 27 from bituminous mines. Anthracite fatalities numbered the same as last month, but deaths in the bituminous industry were 2 higher than in January. Fatal accidents in the manufacturing industries during February numbered 34, or approximately one-half the number in the mining industry. Eighteen of the 34 deaths charged to manufacturing industries occurred in the metal industry. The transportation industry had fewer fatal accidents in February than in January, showing a drop from 24 in January to 10 in February. Fatalities on steam railroads during February were 10 less than in January. Fatal accident totals for other industry groups in February compared with January were as follows: construction and contracting 13, or 3 less than in January; public utilities 2, the same number as in January; quarries and non-coal mines 2, a gain of 1; trade 6, an increase of 2; state and municipal 7, a reduction of 5; and miscellaneous 8, an increase of 3.

Cause classifications of the 148 fatal accidents reported during February show that falling objects, cars and engines, explosive substances, and falls of persons were the leading causes of accidents resulting in industrial deaths in February.

Falling objects were the cause of 41 fatalities, of which 36 were caused by falls of coal, timber, or rock in coal mines.

Twenty men were killed by cars and engines. Of these, 8 were employed in coal mines, 6 on steam railroads, 4 in the metal industry, and 2 in the contracting industry.

Explosive substances and falls of persons were charged with 17 deaths each. The number of deaths attributed to explosive substances was unusually high. Some of these with ordinary care might have been prevented. One construction laborer lost his life while working in a gas filled man-hole because his fellow worker handed him a lighted match to enable him to see more clearly. Two men were killed by a cork-dust explosion in a cork factory. In the mining industry, 5 were killed by explosions of mine gas, five were struck by blasts or objects thrown by blasts. and 1 miner was killed when he attempted to use a short fuse to set off a blast. One quarryman was killed when attempting to recharge an old tamping. Another, a railroad employe, was killed while attempting to relight a fouled fuse in a blasting operation.

Other causes of fatal injuries to workers during February were as follows; working machinery 4, transmission 1, elevators and hoists 8, cranes and derricks 6, motor vehicles 9, vehicles other than motor vehicles 1, handling objects 9, electricity 2, hot and corrosive substances 3, and miscellaneous causes 10. Two workers died dur-

ing February from blood poisoning following slight injuries to their fingers.

Of the 148 persons killed during February 112 were married, 25 were single, 6 were widowers, and in 4 cases the marital condition was not reported. Of the 112 married men who lost their lives during February, 52 were survived by widows only, and the remaining 60 in addition to their widows were survived by 146 dependent children.

The ages of the 148 workers reported killed during February were as follows:

AGE GROUP	NUMBER	PER CENT
Under 21 years	5	3.4
21 to 30 years	27	18.3
31 to 40 years	40	27.0
41 to 50 years	23	15.5
51 to 60 years	29	19.6
61 years and over	15	10.1
Age not reported	9	6.1
Total	148	100.0

Compensation agreements were approved in 6,055 cases during February, 1928, involving awards totaling $957,996. This amount was made up as follows:

136 fatal cases	$389,497
242 permanent disability cases	220,404
5,677 temporary disability cases	348,095

The total of compensation awards for February was 13 per cent less than the total for January, 1928, and was $139,272, or 12.7 per cent, less than the amount awarded during February, 1927. The reduced number of fatal and permanent disability accidents occurring during recent months accounts for this decrease in compensation awards.

The number of temporary disability cases compensated during February was raised somewhat by the inclusion of 384 cases that became compensable under the provision of the new law which reduced the non-compensable waiting period from 10 to 7 days. Awards were made during February in 113 cases where the injured persons were entitled to receive compensation for 1 day, in 146 cases where 2 days' compensation was due, and in 125 cases where 3 days' compensation was payable. The compensation awarded in these 384 cases amounted to $1,903. If these persons had been injured at any time prior to January 1, 1928, they would not have been entitled to compensation benefits other than medical and hospital expenses.

Summary figures showing the number of cases compensated, days lost, and the amount of compensation awarded during 1927, classified according to cause of accident are published in this issue. This table shows that falling objects were the cause of 32 per cent of the fatal accidents, that working machinery was the cause of 35 per cent of the permanent disability accidents, and that accidents due to handling objects were the cause of 14,168, or 20 per cent of the temporary disability cases.

There was a potential day loss of 8,922,380 days on account of fatal and permanent disability accidents compensated during 1927, and there was an actual time loss of 3,083,620 days, or 8,448 years, on account of the 69,401 temporary disability accidents. The average actual time loss for temporary disability cases was 44.4 days.

It is interesting to note that of $13,329,557, the total of compensation awarded during the year 1927, $3,432,361, or 25.7 per cent, was awarded on accident cases caused by falling objects, and $1,498,482, or 11.2 per cent, was awarded on accident cases caused by falls of persons. The proper observance of "Look out below" and "Watch your step" warnings would save lives, suffering, and money.

Charts showing the trend of accidents in Pennsylvania during the twelve year period that the Workmen's Compensation Act has been in effect (1916-1927) appear on page 50 of this issue.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF FEBRUARY, 1928

Industries	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	8,754	5,627	3,127	2,961	1,989	972	3,214	2,143	1,071	2,193	1,528	665
Total: Industrial Group (skilled)	3,167	2,279	888	1,057	795	262	1,113	820	293	622	486	136
Building and Construction	465	465	----------	165	165	----------	164	164	----------	86	86	----------
Shipbuilding	19	19	----------	10	10	----------	10	10	----------	4	4	----------
Chemicals and Allied Products	1	1	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clay, Glass and Stone Products	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clothing	24	6	18	23	1	22	8	1	7	5	1	4
Textiles	32	25	7	41	----------	41	1	----------	1	1	----------	1
Food and Kindred Products	21	19	2	15	8	7	11	3	8	8	1	7
Leather, Rubber and Composition Goods	25	25	----------	2	2	----------	2	2	----------	1	1	----------
Lumber, Woodwork and Furniture	65	65	----------	33	33	----------	28	28	----------	17	17	----------
Paper and Printing	11	9	2	5	5	----------	6	6	----------	5	5	----------
Metals and Metal Products	685	678	7	340	333	7	337	330	7	221	216	5
Mines and Quarries	14	14	----------	11	11	----------	11	11	----------	11	11	----------
Transportation and Public Utilities	408	397	11	108	107	1	113	109	4	68	66	2
Hotel and Restaurant	176	46	130	72	23	49	65	19	46	37	10	27
Wholesale and Retail Trade	228	68	160	49	2	47	46	1	45	19	1	18
Miscellaneous	993	442	551	183	95	88	311	136	175	139	67	72
Total: Other Groups	5,587	3,348	2,239	1,904	1,194	710	2,101	1,323	778	1,571	1,042	529
Professional and Technical	409	335	74	132	120	12	161	140	21	58	50	8
Agriculture	18	18	----------	12	12	----------	11	11	----------	1	1	----------
Semi-Skilled	2,018	807	1,211	513	133	380	604	165	439	313	103	210
Unskilled	2,187	2,063	124	845	832	13	916	903	13	803	794	9
Casual and Day Workers[1]	955	125	830	402	97	305	409	104	305	396	94	302
January, 1928	9,741	6,477	3,264	2,996	1,858	1,138	3,220	2,028	1,192	2,062	1,334	728
December, 1927	9,906	6,623	3,283	3,984	2,505	1,479	4,084	2,617	1,467	2,949	1,975	974
November, 1927	8,971	5,978	2,993	4,294	2,768	1,526	4,296	2,822	1,474	3,213	2,222	991
February, 1927	11,025	6,949	4,076	4,499	2,942	1,557	4,680	3,080	1,600	3,772	2,572	1,200
February, 1926	10,248	6,885	3,363	6,332	4,499	1,833	6,661	4,788	1,873	5,707	4,233	1,474
February, 1925	9,786	6,654	3,132	5,094	3,578	1,516	5,036	3,786	1,250	4,387	3,284	1,103

[1] The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

Group and Industry	No. of Plants Reporting	Number of wage earners—week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Feb. 15 1928	Jan. 15 1928	Per cent change	Feb. 15 1928	Jan. 15 1928	Per cent change	Feb. 15 1928	Jan. 15 1928	Per cent change
All Industries (52)	807	265,860	261,261	+ 1.8	$7,009,172	$6,472,104	+ 8.3	$26.36	$24.77	+ 6.4
Metal Products	238	104,381	101,491	+ 2.8	3,010,953	2,694,308	+11.8	28.85	26.55	+ 8.7
Blast Furnaces	10	2,390	2,164	+10.4	69,594	65,409	+ 6.4	29.12	30.23	— 3.7
Steel Works and Rolling Mills	44	55,248	53,155	+ 3.9	1,644,777	1,431,348	+14.9	29.77	26.93	+10.5
Iron and Steel Forgings	10	1,844	1,782	+ 3.5	49,507	44,606	+11.0	26.85	25.03	+ 7.3
Structural Iron Work	10	3,608	3,682	— 2.0	102,876	100,590	+ 2.3	28.51	27.32	+ 4.4
Steam and Hot Water Heating Apparatus	19	4,872	4,701	+ 3.6	147,459	134,182	+ 9.9	30.27	28.54	+ 6.1
Stoves and Furnaces	8	929	610	+52.3	24,040	15,857	+51.6	25.88	26.00	— 0.5
Foundries	39	7,332	7,254	+ 1.1	203,953	184,117	+10.8	27.82	25.38	+ 9.6
Machinery and Parts	38	8,703	8,543	+ 1.9	263,598	245,762	+ 7.3	30.29	28.77	+ 5.3
Electrical Apparatus	17	7,878	8,215	— 4.1	214,913	200,849	+ 7.0	27.28	24.45	+11.6
Engines and Pumps	10	3,298	3,244	+ 1.7	92,581	84,571	+ 9.5	28.07	26.07	+ 7.7
Hardware and Tools	19	6,255	6,196	+ 1.0	146,312	137,435	+ 6.5	23.39	22.18	+ 5.5
Brass and Bronze Products	10	695	669	+ 3.9	19,869	18,858	+ 5.4	28.59	28.19	+ 1.4
Jewelry and Novelties	4	1,329	1,276	+ 4.2	31,474	30,724	+ 2.4	23.68	24.08	— 1.7
Transportation Equipment	42	30,214	30,212	+ 0.0	874,922	831,780	+ 5.2	28.96	27.53	+ 5.2
Automobiles	7	4,055	3,953	+ 2.6	131,418	119,448	+10.0	32.41	30.22	+ 7.2
Automobile Bodies and Parts	12	7,755	6,763	+14.7	237,572	207,956	+14.2	30.63	30.75	— 0.4
Locomotives and cars	13	13,179	13,950	— 5.5	354,288	362,276	— 2.2	26.88	25.97	+ 3.5
Railroad repair shops	7	3,435	3,574	— 3.9	93,598	85,653	+ 9.3	27.25	23.97	+13.7
Ship building	3	1,790	1,972	— 9.2	58,046	56,447	+ 2.8	32.43	28.62	+13.3
Textile Products	164	59,593	57,717	+ 3.3	1,352,404	1,256,352	+ 7.6	22.69	21.77	+ 4.2
Cotton goods	14	4,086	3,981	+ 2.6	93,626	89,159	+ 5.0	22.91	22.40	+ 2.3
Woolens and worsteds	16	6,671	6,462	+ 3.2	142,795	135,417	+ 5.4	21.41	20.96	+ 2.1
Silk goods	39	19,760	18,529	+ 6.6	408,699	343,137	+19.1	20.68	18.52	+11.7
Textile dyeing and finishing	8	1,828	1,794	+ 1.9	48,327	45,964	+ 5.1	26.44	25.62	+ 3.2
Carpets and rugs	10	2,817	2,976	— 5.3	69,537	74,435	— 6.6	24.68	25.01	— 1.3
Hats	5	3,862	3,858	+ 0.1	107,204	98,343	+ 9.0	27.76	25.49	+ 8.9
Hosiery	27	11,916	11,760	+ 1.3	324,386	325,057	— 0.2	27.22	27.64	— 1.5
Knit goods, other	15	2,870	2,714	+ 5.7	55,345	48,968	+13.0	19.28	18.04	+ 6.9
Men's clothing	11	1,814	1,724	+ 5.2	40,893	38,692	+ 5.7	22.54	22.44	+ 0.4
Women's clothing	9	1,490	1,314	+13.4	22,930	20,125	+13.9	15.39	15.32	+ 0.5
Shirts and furnishings	10	2,479	2,605	— 4.8	38,662	37,065	+ 4.3	15.60	14.23	+ 9.6

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

Group and Industry	No. of Plants Reporting	Number of wage earners—week ended			Total weekly wages week ended			Average weekly earnings week ended		
		Feb. 15 1928	Jan. 15 1928	Per cent change	Feb. 15 1928	Jan. 15 1928	Per cent change	Feb. 15 1928	Jan. 15 1928	Per cent change
Foods and Tobacco	99	20,985	21,346	— 1.7	431,015	430,482	+ 0.1	20.54	20.17	+ 1.8
Bread and bakery products	29	4,238	4,252	— 0.3	123,192	123,295	— 0.1	29.07	29.00	+ 0.2
Confectionery	14	4,394	4,489	— 2.1	84,353	78,986	+ 6.8	19.20	17.60	+ 9.1
Ice cream	11	1,172	1,140	+ 2.8	38,375	38,377	— 0.0	32.74	33.66	— 2.7
Meat packing	14	2,062	2,114	— 2.5	60,428	61,776	— 2.2	29.31	29.22	+ 0.3
Cigars and tobacco	31	9,119	9,351	— 2.5	124,667	128,048	— 2.6	13.67	13.69	— 0.1
Stone, Clay and Glass Products	66	16,545	16,568	— 0.1	445,694	400,596	+11.3	26.94	24.18	+11.4
Brick, tile and pottery	29	4,258	4,395	— 3.1	104,271	95,545	+ 9.1	24.49	21.74	+12.6
Cement	14	5,785	5,949	— 2.8	168,566	167,782	+ 0.5	29.14	28.20	+ 3.3
Glass	23	6,502	6,224	+ 4.5	172,857	137,269	+25.9	26.59	22.05	+20.6
Lumber Products	45	4,468	4,323	+ 3.4	98,934	91,908	+ 7.6	22.14	21.26	+ 4.1
Lumber and planing mills	19	1,954	1,944	+ 0.5	44,289	43,160	+ 2.6	22.67	22.20	+ 2.1
Furniture	20	1,871	1,699	+10.1	43,769	38,828	+12.7	23.39	22.85	+ 2.4
Wooden boxes	6	643	680	— 5.4	10,876	9,920	+ 9.6	16.91	14.59	+15.9
Construction and Contracting*	37	2,972	3,518	—15.5	95,327	99,966	— 4.6	32.08	28.42	+12.9
Buildings	20	1,205	1,264	— 4.7	39,222	38,557	+ 1.7	32.55	30.50	+ 6.7
Street and highway	4	252	519	—51.4	6,914	12,450	—44.5	27.44	23.99	+14.4
General	13	1,515	1,735	—12.7	49,191	48,959	+ 0.5	32.47	28.22	+15.1
Chemical Products	47	10,872	10,832	+ 0.4	320,543	295,683	+ 8.4	29.48	27.30	+ 8.0
Chemicals and drugs	27	1,408	1,385	+ 1.7	38,360	37,107	+ 3.4	27.24	26.79	+ 1.7
Coke	3	2,800	2,809	— 0.3	85,713	78,071	+ 9.8	30.61	27.79	+10.1
Explosives	3	531	539	— 1.5	13,257	10,434	+27.1	24.97	19.36	+29.0
Paints and varnishes	9	1,038	1,026	+ 1.2	28,128	24,905	+12.9	27.10	24.27	+11.7
Petroleum refining	5	5,095	5,073	+ 0.4	155,085	145,166	+ 6.8	30.44	28.62	+ 6.4
Leather and Rubber Products	51	11,810	11,683	+ 1.1	266,146	266,135	+ 0.0	22.54	22.78	— 1.1
Leather tanning	17	5,919	5,893	+ 0.4	146,020	146,919	— 0.6	24.67	24.93	— 1.0
Shoes	23	4,280	4,211	+ 1.6	81,409	77,487	+ 5.1	19.02	18.40	+ 3.4
Leather products, other	7	654	611	+ 7.0	13,333	13,056	+ 2.1	20.39	21.37	— 4.6
Rubber tires and goods	4	957	968	— 1.1	25,384	28,673	—11.5	26.52	29.62	—10.5
Paper and Printing	55	6,992	7,089	— 1.4	208,561	204,860	+ 1.8	29.83	28.90	+ 3.2
Paper and wood pulp	12	3,140	3,145	— 0.2	92,552	88,407	+ 4.7	29.48	28.11	+ 4.9
Paper boxes and bags	6	671	723	— 7.2	9,740	9,790	— 0.5	14.52	13.54	+ 7.2
Printing and publishing	37	3,181	3,221	— 1.2	106,269	106,663	— 0.4	33.41	33.11	+ 0.9

*Not included in total for all Industries.

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

Group and Industry	No. of Plants Reporting	Total weekly man-hours week ended			Average hourly wages week ended		
		Feb. 15 1928	Jan. 15 1928	Per cent Change	Feb. 15 1928	Jan. 15 1928	Per cent Change
ALL INDUSTRIES: (47)	473	7,350,597	6,702,814	+ 9.7	$.568	$.563	+ 0.9
Metal products	171	3,608,283	3,227,522	+11.8	.602	.600	+ 0.3
Blast furnaces	8	107,860	104,205	+ 3.5	.599	.580	+ 3.3
Steel works and rolling mills	27	1,941,070	1,704,908	+13.9	.625	.624	+ 0.2
Iron and steel forgings	8	67,985	59,479	+14.3	.574	.561	+ 2.3
Structural iron work	6	63,627	59,664	+ 6.6	.576	.578	— 0.3
Steam and hot water heating apparatus	13	149,170	122,522	+21.7	.606	.621	— 2.4
Foundries	34	316,969	281,974	+12.4	.602	.606	— 0.7
Machinery and parts	29	347,978	326,766	+ 6.5	.597	.595	+ 0.3
Electrical apparatus	13	190,247	154,040	+23.5	.517	.513	+ 0.8
Engines and pumps	10	156,104	145,025	+ 7.6	.593	.583	+ 1.7
Hardware and tools	12	176,018	180,153	— 2.3	.525	.523	+ 0.4
Brass and bronze products	8	33,823	31,888	+ 6.1	.558	.560	— 0.4
Jewelry and novelties	3	57,432	56,898	+ 0.9	.496	.496	0.0
Transportation equipment	33	952,635	903,850	+ 5.4	.632	.617	+ 2.4
Automobiles	7	211,995	185,786	+14.1	.620	.643	— 2.6
Automobile bodies and parts	9	362,716	306,264	+ 7.9	.638	.603	+ 5.8
Locomotives and cars	9	211,942	214,413	— 1.2	.587	.591	— 0.7
Railroad repair shops	5	84,159	81,036	+ 3.9	.676	.648	+ 4.3
Shipbuilding	3	81,823	86,351	— 5.2	.709	.654	+ 8.4
Textile products	69	1,084,263	980,032	+10.6	.448	.439	+ 2.1
Cotton goods	11	70,101	64,486	+ 8.7	.475	.474	+ 0.2
Woolens and worsteds	9	116,992	120,349	— 2.8	.500	.471	+ 6.2
Silk goods	20	577,542	471,052	+22.6	.428	.419	+ 2.1
Textiles, dyeing and finishing	4	33,185	34,619	— 4.1	.527	.485	+ 8.7
Carpets and rugs	5	80,927	95,813	—15.5	.522	.539	— 3.2
Hosiery	5	77,808	70,402	+10.5	.498	.481	+ 3.5
Knit goods, other	8	57,117	51,826	+10.2	.396	.384	+ 3.1
Women's clothing	4	38,650	33,916	+14.0	.392	.370	+ 5.9
Shirts and furnishings	3	31,941	37,569	—15.0	.349	.290	+20.3

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Concluded)

Group and Industry	No. of Plants Reporting	Total weekly man-hours week ended			Average hourly wages week ended		
		Feb. 15 1928	Jan. 15 1928	Per cent Change	Feb. 15 1928	Jan. 15 1928	Per cent Change
Foods and tobacco	42	310,196	286,330	+ 8.3	.481	.497	— 3.2
Bread and bakery products	16	73,007	73,326	— 0.4	.514	.524	— 1.9
Confectionery	5	104,507	79,240	+31.9	.424	.438	— 3.2
Ice cream	8	44,060	43,809	+ 0.6	.584	.597	— 2.2
Meat packing	9	59,621	62,941	— 5.3	.548	.542	+ 1.1
Cigars and tobacco	4	29,001	27,014	+ 7.4	.303	.333	— 9.0
Stone, clay and glass products	38	497,757	425,711	+16.9	.559	.549	+ 1.8
Brick, tile and pottery	17	127,643	120,723	+ 5.7	.530	.514	+ 3.1
Cement	8	169,710	148,356	+14.4	.515	.516	— 0.2
Glass	13	200,404	156,632	+27.9	.615	.606	+ 1.5
Lumber products	36	121,426	109,859	+10.5	.502	.512	— 2.0
Lumber and planing mills	15	43,180	44,898	— 3.8	.525	.532	— 1.3
Furniture	17	66,516	57,036	+16.6	.509	.514	— 1.0
Wooden boxes	4	11,730	7,925	+48.0	.380	.392	— 3.1
Construction and contracting*	31	112,407	124,319	— 9.6	.775	.734	+ 5.6
Buildings	18	44,748	45,825	— 2.4	.819	.792	+ 3.4
Street and highway	4	11,446	20,947	—45.4	.604	.594	+ 1.7
General	9	56,213	57,547	— 2.3	.776	.738	+ 5.1
Chemical products	21	202,877	293,204	+ 3.3	.574	.547	+ 4.9
Chemicals and drugs	12	47,798	46,308	+ 3.2	.487	.491	— 0.8
Paints and varnishes	6	45,221	38,605	+17.1	.548	.555	— 1.3
Petroleum refining	3	209,858	208,291	+ 0.8	.599	.558	+ 7.3
Leather and rubber products	27	243,536	255,440	— 4.7	.478	.485	— 1.4
Leather tanning	9	101,197	110,605	— 8.5	.532	.536	— 0.7
Shoes	10	87,448	86,155	+ 1.5	.367	.358	+ 2.5
Leather products, other	4	9,709	9,630	+ 0.8	.519	.537	— 3.4
Rubber tires and goods	4	45,182	49,050	— 7.9	.562	.585	— 3.9
Paper and printing	36	229,624	220,866	+ 4.0	.586	.587	— 0.2
Paper and wood pulp	8	146,319	139,391	+ 5.0	.540	.539	+ 0.2
Paper boxes and bags	3	8,783	8,265	+ 6.3	.342	.346	— 1.2
Printing and publishing	25	74,522	73,210	+ 1.8	.706	.705	+ 0.1

*Not included in total for all industries.

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

City Areas	No. of Plants Reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		February 15, 1928	January 15, 1928	Per cent change	February 15 1928	January 15 1928	Per cent change	February 15 1928	January 15 1928	Per cent change
Allentown-Bethlehem-Easton,	77	20,545	20,365	+ 0.9	$524,153	$487,628	+ 7.5	$25.51	$23.94	+ 6.6
Altoona	14	2,129	2,267	— 6.1	49,682	44,367	+12.0	23.34	19.57	+19.3
Erie	11	3,792	3,767	+ 0.7	115,407	112,195	+ 2.9	30.43	29.78	+ 2.2
Harrisburg	35	6,857	6,553	+ 4.6	150,370	133,679	+12.5	21.93	20.40	+ 7.5
Hazleton-Pottsville	19	4,458	4,450	+ 0.2	98,747	94,449	+ 4.6	22.15	21.22	+ 4.4
Johnstown	12	873	850	+ 2.7	25,461	25,090	+ 1.5	29.16	29.52	— 1.2
Lancaster	28	4,943	4,283	+ 4.9	93,327	88,806	+ 5.1	20.77	20.73	+ 0.2
New Castle	10	5,954	5,711	+ 4.3	168,920	155,958	+ 8.3	28.37	27.31	+ 3.9
Philadelphia	243	87,311	85,901	+ 1.6	2,399,362	2,325,729	+ 3.2	27.48	27.07	+ 1.5
Pittsburgh	93	60,573	58,209	+ 4.1	1,785,768	1,535,728	+16.3	29.48	26.38	+11.8
Reading-Lebanon	62	20,588	20,491	+ 0.5	518,470	489,707	+ 5.9	25.18	23.90	+ 5.4
Scranton	32	5,087	4,914	+ 3.5	100,904	85,428	+18.1	19.84	17.38	+14.2
Sunbury	27	11,319	10,807	+ 4.7	245,753	209,955	+17.1	21.71	19.43	+11.7
Wilkes-Barre	20	5,731	5,635	+ 1.7	108,111	97,767	+10.6	18.86	17.35	+ 8.7
Williamsport	23	5,208	5,303	— 1.8	134,865	133,270	+ 1.2	25.90	25.13	+ 3.1
York	44	5,406	5,848	— 7.6	111,326	116,328	— 4.3	20.59	19.89	+ 3.5

NUMBER OF AGREEMENTS APPROVED, AMOUNTS OF COMPENSATION AWARDED, AND TIME LOSS IN DAYS DUE TO ACCIDENTS COMPENSATED DURING THE YEAR 1927

Causes	Cases			Days Lost			Compensation		
	Fatal	Permanent Disability	Temporary Disability	Fatal*	Permanent* Disability	Temporary Disability	Fatal	Permanent Disability	Temporary Disability
Total of all causes	2,001	3,479	69,401	12,006,000	4,553,165	3,083,620	5,772,868	3,226,464	4,330,297
Working machinery	68	1,217	5,407	408,000	1,076,033	210,709	186,517	751,602	274,114
Boilers and pressure apparatus	14	7	65	84,000	9,140	4,873	37,121	7,290	9,935
Pumps and prime movers	2	56	198	12,000	60,400	8,473	7,659	41,720	10,974
Transmission apparatus	13	35	273	78,000	44,100	15,573	29,557	26,864	23,045
Elevators and hoists	49	25	421	294,000	39,745	26,772	92,571	29,565	38,419
Cranes and derricks	61	171	1,403	366,000	176,437	82,318	189,430	124,828	124,518
Cars and engines	245	341	6,363	1,470,000	424,055	313,787	683,771	280,594	467,507
Motor vehicles	134	69	3,465	804,000	99,535	168,942	356,079	69,569	237,309
Other vehicles	19	20	746	114,000	55,740	42,033	47,302	38,170	60,815
Hand trucks	9	23	969	54,000	20,700	42,482	28,458	14,640	56,987
Water and air craft	9	2	50	54,000	3,300	3,331	7,742	2,055	4,916
Handling objects—by hand	55	399	14,168	330,000	306,182	517,951	163,379	218,344	661,218
Hand tools	27	381	5,326	162,000	576,142	171,428	86,025	459,752	205,807
Electricity	102	15	421	612,000	41,350	17,428	331,545	28,280	26,410
Explosive substances	210	129	990	1,260,000	297,587	55,539	652,875	236,296	87,339
Hot and corrosive substances	30	40	2,277	180,000	68,945	78,050	80,636	53,258	96,411
Falling objects	650	304	11,240	3,900,000	707,453	631,769	2,005,038	473,846	953,477
Falls of persons	213	105	10,215	1,278,000	349,871	502,437	532,710	218,891	746.881
Stepping upon or striking against objects	20	49	3,462	120,000	36,824	113,536	63,412	28,054	140,997
Miscellaneous	71	91	1,942	426,000	159,626	76,189	191,041	122,846	103,218

*Fatal and permanent injury cases are weighted in accordance with the scale of time losses for weighting industrial accident disabilities recommended by the International Association of Industrial Accident Boards and Commissions. For detailed application of weight table see Labor and Industry Vol. XII, No. 5, Page 6 of Inserts, or Bulletin No. 276 of the U. S. Bureau of Labor and Statistics.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

ACCIDENT REPORTS RECEIVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	164	135	11,840	12,139
February	148	113	11,799	12,060
March				
April				
May				
June				
Total—1928	312	248	23,639	24,199
1927				
January	170	144	14,353	14,667
February	184	154	12,947	13,285
March	163	150	14,182	14,495
April	169	145	12,548	12,862
May	173	139	12,730	13,042
June	186	124	13,317	13,627
Total—1927	2,064	1,665	157,025	160,754
*Grand Total	29,178	11,512	2,161,331	2,202,021

AGREEMENTS APPROVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	168	280	5,288	5,736
February	136	242	5,677	6,055
March				
April				
May				
June				
Total—1928	304	522	10,965	11,791
1927				
January	158	250	4,760	5,168
February	174	363	3,994	4,531
March	174	323	4,945	5,442
April	131	231	6,829	7,191
May	128	262	7,839	8,229
June	186	309	7,531	8,026
Total—1927	2,001	3,479	69,406	74,886
*Grand Total	24,060	24,485	806,323	854,868

*Since the inception of the Act, January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	Awarded: Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded
January	$1,100,855	$ 470,921	$ 237,571	$ 392,363
February	957,996	389,497	220,404	348,095
March				
April				
May				
June				
Total—1928	$2,058,851	$860,418	$457,975	$740,458
1927				
January	$ 995,376	$ 528,084	$ 210,370	$ 256,922
February	1,097,268	504,421	374,696	218,151
March	979,090	510,805	251,823	216,462
April	846,197	393,650	204,166	248,381
May	1,087,132	380,418	268,041	438,673
June	1,408,339	482,313	312,575	613,451
Total—1927	$13,329,557	$5,772,868	$3,226,464	$4,330,225
*Grand Total	$137,043,935	$66,287,068	$28,339,308	$42,417,559

1928	Paid: Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
January	$ 927,633	$ 297,118	$ 238,152	$ 392,363
February	785,422	215,075	222,252	348,095
March				
April				
May				
June				
Total—1928	$1,713,055	$ 512,193	$ 460,404	$ 740,458
1927				
January	$ 867,141	$ 331,075	$ 279,144	$ 256,922
February	746,916	279,197	249,568	218,151
March	851,925	359,705	275,758	216,462
April	785,120	290,396	246,343	248,381
May	916,262	211,002	266,587	438,673
June	1,517,144	331,392	572,301	613,451
Total—1927	$11,697,889	$3,492,763	$3,860,969	$4,330,225
*Grand Total	$95,250,631	$29,224,474	$23,608,598	$42,417,559

*Since the inception of the Act, January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	12	$ 26,774	5	$ 13,287	15	$ 30,734	14	$ 24,898	47	$ 69,998
February	9	23,580	7	17,577	13	27,637	11	20,210	29	47,755
March										
April										
May										
June										
Total—1928	21	$ 50,354	12	$ 30,864	28	$ 58,371	25	$ 45,108	76	$ 117,753
1927										
January	10	$ 25,714	8	$ 20,610	13	$ 26,759	8	$ 14,708	31	$ 49,923
February	19	46,639	9	23,2[illegible]	28	54,922	18	31,609	77	116,274
March	11	28,164	8	19,545	15	28,105	10	16,724	46	69,5[illegible]4
April	4	10,240	4	10,143	15	30,905	10	16,763	32	46,858
May	9	23,060	7	17,291	15	29,728	10	18,624	50	77,095
June	8	19,647	3	7,714	19	38,246	22	39,747	47	72,249
Total—1927	128	$ 319,780	63	$ 153,843	214	$ 431,661	159	$ 282,506	588	$ 882,420
*Grand Total	1,270	$2,795,931	906	$2,009,799	2,875	$5,223,570	1,742	$2,872,655	7,124	$9,882,164

*Since the inception of the act—January 1, 1916. **Multiple losses separated respectively.

NOTE: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

**PERMANENT INJURIES.—(Continued)

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	118	$ 37,612	93	$ 16,432	20	$ 4,248	3	$ 13,588
February	93	33,824	99	21,192	15	5,629	5	23,000
March								
April								
May								
June								
Total—1928	211	$ 71,436	192	$ 37,624	35	$ 9,877	8	$ 36,588
1927								
January	100	$ 34,173	99	$ 19,164	12	$ 7,227	3	$ 12,002
February	154	54,073	97	18,274	7	2,451	6	27,234
March	148	45,955	130	23,366	7	1,671	4	18,729
April	113	38,669	88	14,417	6	3,816	7	32,355
May	95	31,829	95	18,582	7	3,296	10	48,536
June	143	44,786	99	19,408	6	3,588	19	67,190
Total—1927	1,502	$509,006	1,202	$226,122	120	$51,059	89	$370,067
*Grand Total	6,974	$2,380,471	5,858	$1,098,066	399	$228,705	445	$1,847,956

*Since the inception of the Act—January 1, 1916.
**Multiple losses separated respectively.
Note: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING FEBRUARY, 1928

Cause	Total of all industries		Construction and Contracting						Coal Mining				Quarrying and mining other than coal mining		Manufacturing																	
			Building construction		Other construction		Contracting		Anthracite		Bituminous				Total of manufacturing industries		Chemicals and allied products		Clay, glass and stone products		Clothing		Food and kindred products		Leather, rubber, and composition goods		Lumber, wood and their products		Paper and paper products and printing and publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	148	11,912	3	594	5	196	5	275	39	1,949	27	1,936	2	132	34	4,306	6	171	--	338	--	193	--	433	3	139	4	352	2	204	1	296
Working machinery and processes	4	996	--	18	--	11	--	16	1	36	1	100	--	3	2	732	--	11	--	27	--	78	--	25	--	28	--	90	--	43	--	80
Boilers and pressure apparatus	---	29	--	1	--	1	--	5	--	2	--	1	--	-----	--	16	--	1	--	-----	--	-----	--	2	--	-----	--	-----	--	-----	--	1
Pumps and prime movers	---	27	--	3	--	1	--	6	--	2	--	3	--	-----	--	10	--	3	--	-----	--	-----	--	-----	--	-----	--	1	--	-----	--	-----
Transmission apparatus	1	13	--	1	--	1	--	-----	--	-----	--	3	--	2	1	5	--	-----	--	-----	--	-----	--	2	--	-----	--	-----	--	-----	--	2
Elevators and hoists	8	78	--	5	--	-----	--	-----	5	15	--	18	--	-----	3	26	2	1	--	1	--	1	--	7	1	3	--	1	--	2	--	3
Cranes and derricks	6	177	--	13	--	6	--	18	--	7	--	7	--	5	5	103	2	5	--	3	--	-----	--	3	--	1	--	-----	1	-----	--	1
Cars and engines	20	938	--	3	--	2	2	5	3	272	5	434	--	10	4	67	--	2	--	13	--	-----	--	-----	--	-----	--	3	--	1	--	1
Motor vehicles	9	451	--	12	--	6	--	20	--	6	--	3	--	3	--	131	--	11	--	4	--	3	--	30	--	1	--	8	--	5	--	6
Other vehicles	1	96	--	1	--	-----	1	3	--	3	--	2	--	1	--	56	--	4	--	1	--	-----	--	23	--	-----	--	21	--	-----	--	-----
Hand trucks	---	138	--	7	--	3	--	3	--	-----	--	-----	--	1	--	99	--	-----	--	19	--	2	--	10	--	3	--	2	--	7	--	6
Water and air craft	---	9	--	-----	--	-----	--	3	--	-----	--	1	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Handling objects—by hand	9	2,607	--	166	--	49	--	58	1	419	--	250	1	34	5	1,138	--	35	--	118	--	37	--	108	--	33	3	83	--	44	--	73
Hand tools	---	1,060	--	51	--	25	--	13	--	203	--	209	--	18	--	354	--	12	--	26	--	14	--	42	--	12	--	40	--	9	--	18
Electricity	2	70	--	2	1	-----	--	1	--	11	--	17	--	-----	--	20	--	-----	--	4	--	1	--	-----	--	1	--	-----	--	1	--	1
Explosive substances	17	182	--	3	1	3	--	4	7	48	4	2	1	4	3	56	--	8	--	5	--	-----	--	6	2	8	--	-----	--	4	--	1
Hot and corrosive substances	3	337	--	26	--	8	--	7	--	10	--	9	--	-----	1	201	--	15	--	12	--	2	--	23	--	7	--	1	--	7	1	11
Falling objects	41	1,699	1	61	--	21	2	34	19	525	17	577	--	22	1	344	--	9	--	29	--	6	--	20	--	8	1	31	--	11	--	18
Falls of persons	17	1,978	1	160	3	36	--	55	2	226	--	127	--	23	7	681	1	39	--	51	--	37	--	95	--	24	--	51	--	46	--	47
Stepping upon or striking against objects	---	597	--	49	--	18	--	13	--	96	--	74	--	2	--	212	--	6	--	16	--	12	--	21	--	5	--	13	--	18	--	21
Miscellaneous	10	430	1	12	--	5	--	11	1	68	--	75	--	3	2	121	1	9	--	9	--	-----	--	16	--	5	--	7	1	6	--	6

*F—Fatal N F—Non-Fatal

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING FEBRUARY, 1928—Concluded.

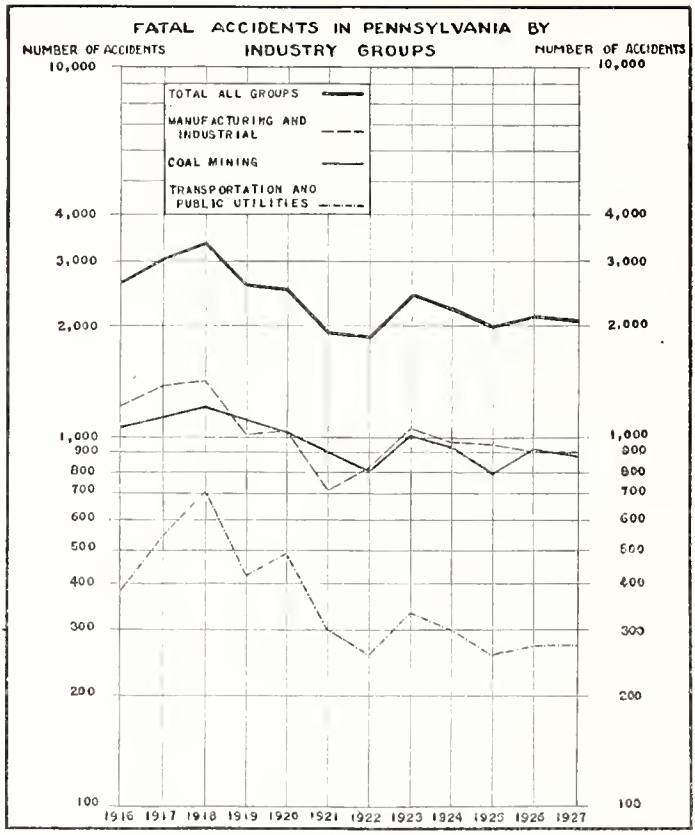
Cause	MANUFACTURING—Concluded																																									
	METALS AND METAL PRODUCTS.																				TRANSPORTATION AND PUBLIC UTILITIES									OTHER INDUSTRIES											
																														TRADING												
	TOTAL		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Retail		Wholesale		State and Municipal		Miscellaneous	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	18	2,173	2	61	6	432	2	423	7	836	1	245	--	176	--	67	9	406	1	145	2	191	--	105	5	627	1	159	7	311	8	520
Working machinery and processes	2	325	--	2	--	49	1	64	1	182	--	15	--	13	--	25	--	5	--	3	--	9	--	3	--	22	--	5	--	4	--	19
Boilers and pressure apparatus	---	12	--	1	--	1	--	-----	--	7	--	3	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	2	--	1
Pumps and prime movers	---	6	--	-----	--	-----	--	1	--	4	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	1	--	1
Transmission apparatus	1	1	--	-----	--	-----	1	-----	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	1	--	-----	--	-----	--	-----
Elevators and hoists	---	7	--	-----	--	-----	--	2	--	4	--	-----	--	1	--	-----	--	-----	--	1	--	-----	--	2	--	4	--	2	--	-----	--	5
Cranes and derricks	2	90	1	3	--	23	--	24	1	27	--	10	--	3	--	-----	--	4	--	3	--	6	--	-----	--	2	--	1	1	1	--	1
Cars and engines	4	47	--	5	2	6	--	1	1	8	1	27	--	-----	--	-----	6	126	--	15	--	1	--	-----	--	1	--	-----	--	1	--	1
Motor vehicles	---	62	--	2	--	3	--	4	--	9	--	3	--	41	--	1	--	1	--	34	--	8	--	1	2	77	1	21	4	60	2	68
Other vehicles	---	1	--	-----	--	-----	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	3	--	-----	--	9	--	4	--	7	--	12
Hand trucks	---	47	--	2	--	12	--	10	--	22	--	1	--	-----	--	3	--	11	--	2	--	1	--	-----	--	3	--	5	--	1	--	2
Water and air craft	---	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	1	--	-----	--	-----	--	-----	--	2	--	1
Handling objects—by hand	2	589	--	15	1	140	--	145	1	213	--	52	--	24	--	18	--	77	--	21	--	37	--	25	1	143	--	48	--	39	1	103
Hand tools	---	180	--	7	--	27	--	24	--	62	--	32	--	28	--	1	--	23	--	10	--	20	--	11	--	71	--	6	--	17	--	29
Electricity	---	12	--	-----	--	2	--	2	--	6	--	1	--	1	--	-----	--	-----	--	8	--	7	--	-----	1	1	--	1	--	-----	--	2
Explosive substances	1	24	1	1	--	5	--	-----	--	8	--	1	--	9	--	-----	1	1	--	-----	--	7	--	1	--	8	--	-----	--	11	--	9
Hot and corrosive substances	---	122	--	7	--	25	--	43	--	26	--	8	--	13	--	1	--	8	--	2	--	7	--	20	--	11	--	3	1	12	1	13
Falling objects	---	211	--	7	--	58	--	41	--	82	--	20	--	3	--	1	--	21	--	4	1	16	--	3	--	21	--	10	--	12	--	30
Falls of persons	6	279	--	6	3	58	--	33	3	104	--	51	--	27	--	12	1	107	--	27	1	52	--	31	1	181	--	36	--	88	1	148
Stepping upon or striking against objects	---	95	--	-----	--	11	--	16	--	42	--	14	--	12	--	5	--	9	--	6	--	9	--	7	--	46	--	13	--	13	--	30
Miscellaneous	---	63	--	3	--	12	--	12	--	29	--	6	--	1	--	-----	1	13	1	9	--	7	--	1	--	26	--	4	1	40	3	35

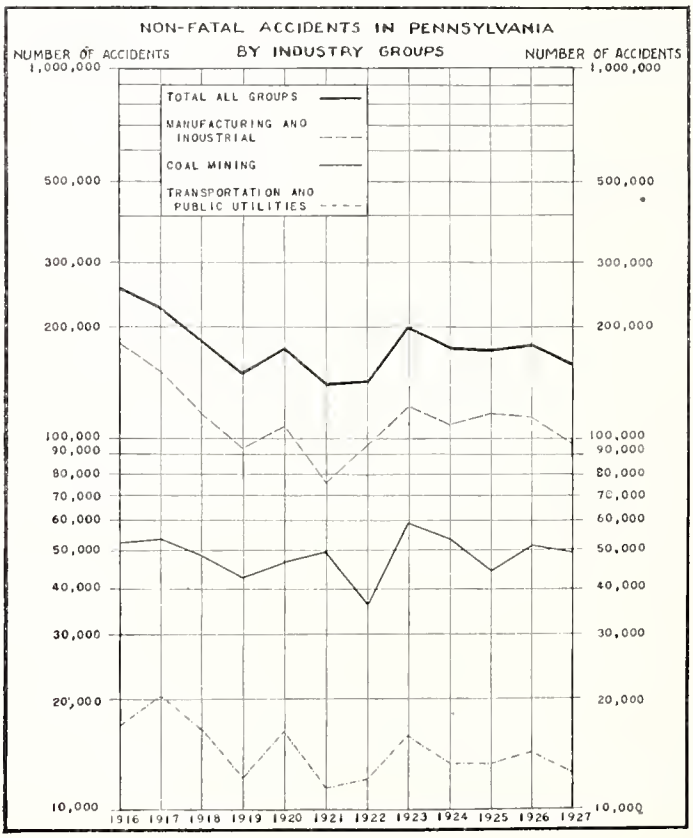
*F—Fatal. N F—Non-Fatal

FIVE-YEAR COMPARATIVE STATE MENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	164	11,975	12,139
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	148	11,912	12,060
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*312*	*23,887*	*24,199*
March	212	15,989	16,201	158	15,517	15,675	185	15.606	15,791	163	14,332	14,495			
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*			
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862			
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*			
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042			
	934	*73,952*	*74,886*	*879*	*73,338*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*			
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627			
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*31,978*			
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724			
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*			
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*			
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,556*	*120,420*	*121,976*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	152	11,619	11,771			
Totals	*2,209*	*175,330*	*177,539*	*2.009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.


FATAL ACCIDENTS IN PENNSYLVANIA BY INDUSTRY GROUPS
NUMBER OF ACCIDENTS
NUMBER OF ACCIDENTS
TOTAL ALL GROUPS
MANUFACTURING AND INDUSTRIAL
COAL MINING
TRANSPORTATION AND PUBLIC UTILITIES
10,000
4,000
3,000
2,000
1,000
900
800
700
600
500
400
300
200
100
1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927


NON-FATAL ACCIDENTS IN PENNSYLVANIA BY INDUSTRY GROUPS
NUMBER OF ACCIDENTS
NUMBER OF ACCIDENTS
TOTAL ALL GROUPS
MANUFACTURING AND INDUSTRIAL
COAL MINING
TRANSPORTATION AND PUBLIC UTILITIES
1,000,000
500,000
300,000
200,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

MAIN OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
Bureau of Employment
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
State Workmen's Insurance Fund,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
412 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
309 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
Hazleton National Bank Building.

Johnstown: .....State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.
Bureau of Inspection,
427 Swank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
State Employment Office for Women,
Bureau of Women and Children,
1924-26 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
108 North Fifth Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
Witmer Building.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.

Note—State Employment offices are conducted in cooperation with the United States Employment Service.

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SPRAYING TROUBLES*

If a fire prevention engineer fell asleep for twenty years like Rip Van Winkle, he would awaken at the end of the period to find the processes of manufacture which had been serious problems when he fell asleep, solved, and with so many new ones coming up for consideration that he would be glad to go back for lasting repose.

One of the fastest growing processes in manufacture or finishing today is that of a spray equipment with paints, varnishes, lacquers, or other flammable finishes. Out of the early medical atomizer or those used for perfume spraying has sprung a new industry, a new fire and accident hazard for underwriters and the public to study closely.

If one should go back to the beginnings of spray painting (and a relatively short history it is), he would find it in use at least thirty years ago by railroads in spraying paint on stations or freight cars. In fact, the story is told of a Texas railroad which many years ago suddenly realized that its stations were gradually being whittled away by indolent natives, who were watching the trains go by. The decision was made to spray their buildings with two coats—one of paint and the other of sand! It goes without saying that another use was made of the local pocket knives!

Patents for spray painting devices began to appear as early as 1869; but the practical utilization of the device did not begin until the late eighties or early nineties. The first machines were not the present type of air atomizers, but were simply an adaption of white washing machines or insecticide sprayers. The buildings of the World's Columbian Exposition in Chicago in 1893 were coated in this way.

It remained for a wide-awake American visitor at a convention of the Railway Car Builders and Master Mechanics at Alexandria Bay in the Thousand Islands to conceive the idea that compressed air might be utilized in applying lacquer and paint to manufactured articles of brass, bronze, and wrought iron, similar to its employment in connection to air hammers and drills. Subsequently he constructed a crude machine which did the work, greatly lowering the cost of finishing while, at the same time, increasing the output.

As an outgrowth of the war, a new material—pyroxylin lacquer—became an important factor in finishing processes. Millions of dollars had been invested in the manufacture of smokeless powder in which nitrated cotton was the base. With the extensive facilities

*Safeguarding America Against Fire—Vol. XI, No. 2.

for the manufacture of this material, it was natural that attempts should be made to adapt them to peace-time industry. To the glory of the American chemist, the results have been most gratifying. A material was developed which had both wearing quality and beauty. But there was a serious defect. The old method of brushing it on did not work well because of the quick drying nature of the material. A new method of application was needed, and so the almost forgotten process of spraying was revived. Its development has been tremendous; not only has it become the principal method of applying lacquer, but it is being used for paints, varnishes, stains, and dyes.

With each new attainment, discovery, or invention, the fire prevention engineer must consider every hazard involved which may threaten the potential value of the new discovery or endanger human

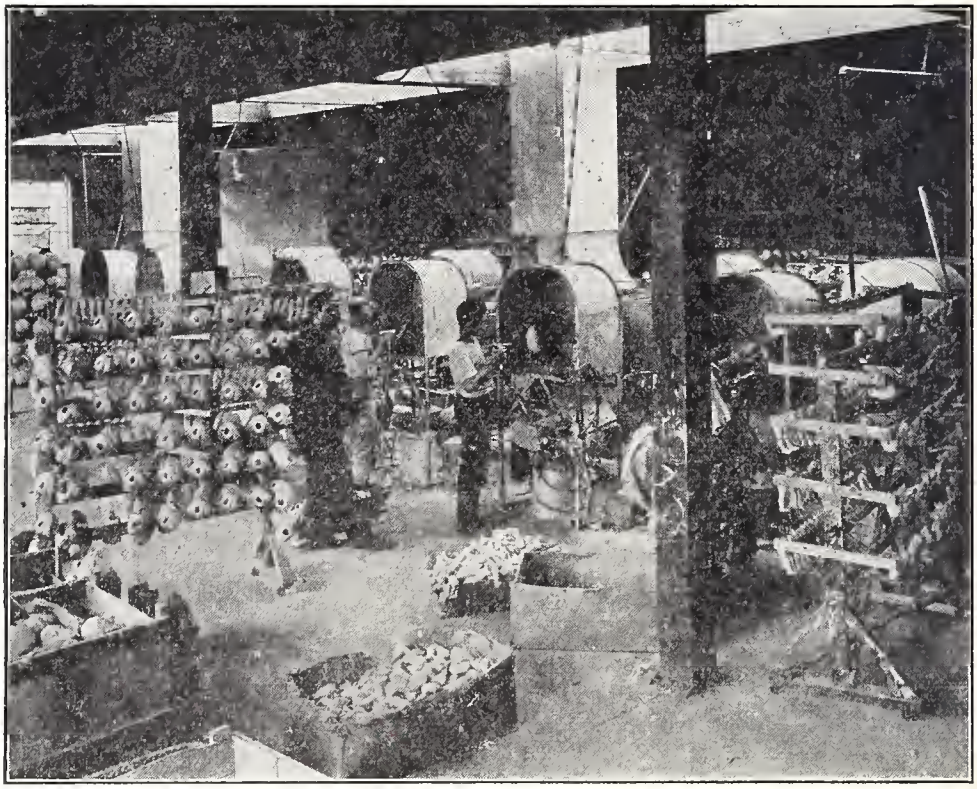

FIG. 1 INDIVIDUAL SPRAYING BOOTHS FOR SPRAYING SMALL PARTS

A rapid effective use of finishing material is helped by adherence to the rule on fire safety.

life or property. One fire problem is solved only to find new and dangerous materials introduced or processes arising that must be safeguarded against fire.

Problems such as these exist in the rapidly developing field of spray finishing involving a danger of explosion and fire. So when the paint brush has been laid aside for the spraying outfit, a step

in efficiency has been made, but not without a new hazard being introduced which the industry, cooperating with the fire prevention engineer, must help to eliminate.

In the fire prevention work of the stock fire insurance companies, every effort is made to assist a new industry or process to advancement along the lines of safety; and as this material involves the safety hazards to life and property, the public is equally concerned in their correction.

An engineer of the National Board of Fire Underwriters was recently assigned to make a complete survey of conditions where spray finishing was to be done. He visited small manufacturers and large plants, lofts in which a single spray was used and buildings housing a battery of spraying devices and employing many gallons of finishing material every working hour. Everything from a baby carriage to a coffin, from dolls to radio horns was included, presenting a series of dangerous conditions not contemplated when the building was constructed or the insurance placed.

Wherever finishing processes are carried on to a large extent, there is an almost universal adoption of the spray application. Straw hats were formerly painted by hand, as were the faces of dolls. They are now painted by the spray process with ease and economy. Where formerly it took a large number of men several weeks to paint a ship, the paint is now sprayed on with much less waste than before by a smaller staff of men and in much less time. A list of the present uses of spray finish would include almost everything that bears any kind of an applied finish. The most recent application has been in the coloring and dying of rugs, scarfs, and other fabrics.

If all the finishing materials used in this new development were non-flammable, there would be no occasion to study the problem in order to prevent fire losses but, unfortunately, recent fires have indicated a very real danger. The materials that lend themselves to spraying include paints, enamels, varnishes, and pyroxylin lacquers, oil, stains, and shellacs. Practically every one knows that these materials contain oils or other volatile liquids which, under certain conditions of temperature, give off vapors or gases that are highly flammable.

It is not generally understood that, regardless of temperature, the material discharged from the spray in a fine mist, combines quickly with the air, creating gaseous vapors. Not only is there a real danger at the place where the spraying is being done, but where pyroxylin lacquers are used, a highly flammable deposit may collect in hidden recesses of the spray booth and premises.

When the dust of the spray material is suspended in the air, it presents the same explosion or fire hazard as the dust in coal mines, or in starch and flour mills, and requires only the exact proportion of air to do serious damage to both life and property should ignition occur.

It is not our purpose to give complete details regarding installations of spraying equipment, nor to outline the proper precautions to be taken. The object of this article is to call attention to a comparatively new hazard, new in the sense of a rapidly expanding use of a process of manufacture. And in this connection we would point out the four principal causes of fire as shown by recent reports:

1. Fans or motors, improperly arranged or designed, used for removing the vapors or gases.
2. Inferior electric lamps, or other electrical defects.
3. Cleaning the interior of spray booths, fans, or motors with highly flammable solvents.
4. Accumulations of deposits or residues, resulting from neglect to clean properly, or from poor design.

In other words, the outstanding causes of fire, so far, have been poor housekeeping conditions and the presence of an igniting agency. But if the vapor and dust-laden air is removed rapidly and diluted in the outside air, there is no opportunity for providing an atmosphere of a highly explosive nature, ready to spread fire so quickly that all the sprinklers in the room will open, as has occurred in several fires in the furniture industry.

Briefly the use of spray painting involves a flash fire hazard, with a possibility of an explosion hazard. Both of these may be the original cause of a fire of serious magnitude because of the general character of the other work incident to the manufacture of the articles being spray finished. It does not take much imagination to visualize the thousands of dollars in values which may be exposed in a furniture factory, automobile plant, piano factory, and others of like character; nor to realize the life hazard which this process may involve if used promiscuously in department stores and office buildings. To offset these probabilities of severe life and property losses it is essential, where the use of the material is extensive, that the buildings be equipped with automatic sprinklers. Of equal value is the segregation of such processes to special rooms or floors. The complete enclosure of stairways and other vertical openings between stories is always essential where quick flash fires are possible.

To these general requirements for fire safety must be added three others of major importance peculiar to the material and process. These are:

1. An adequate exhaust system which will remove the vapors and dust residue as fast as it is produced. This usually requires a properly designed hood, booth or enclosure in which the work is done and from which the air is exhausted by a fan.
2. Proper storage and mixing of the material so that only small quantities will be in open containers or exposed.
3. Good housekeeping. This means just what it does in the home, —keeping refuse swept up, removing dried material from ducts, hoods, booths, and floors, keeping dust and sprayed material off lamps and other possible sources of heat, and, in fact, having the plant at all times neat and tidy and "ready for company."

Installations should be carefully considered, and every recommendation of competent engineers followed in order that a series of fires may not mar or destroy the usefulness of this growing and economical process.

An opportunity exists for everyone interested in fire prevention work to urge "safe" conditions for this finishing process. When an industry is comparatively new, it is just as easy to adopt the proper way of working as the dangerous way.

It will be of interest to quote the findings of the engineer representing the National Board of Fire Underwriters, who made inspections of various spray finishing equipments:

"The establishment using the spray process as a step in the turning out of the finished product creates a special problem. If large quantities of finishing materials are sprayed daily, it follows that the preceding safeguards, precautions and protective measures should be provided and observed. On the other hand, if the quantity consumed daily does not exceed two quarts, a considerably modified application of the foregoing recommendations may be justified, depending in a measure upon the type of building construction and the location of the spraying process. As a means of illustration and in order to indicate the extent to which the aforesaid recommendations may be modified, the following description of actual cases in point, and comments thereon, is given:

"In one instance a concern sprays the edges of postcards and occasional cards using bronzing liquids and pyroxylin lacquers. The establishment is located on the fifth floor of a ten story loft building of ordinary construction. The spray booth, consisting of a hood about 4 feet long, 2 feet high, and 2 feet in depth, and mounted on a steel table supported by an angle iron framework, is located at one end of the single large room comprising the entire establishment. The exhaust duct extends directly from the hood to the outside through a wired glass window, the fan being located within the duct,

and motor and bearing outside. Operations of the fan indicate adequate ventilation, as the vapors and residue are carried off as rapidly as they are created. Nearby, however, there is an open knife switch and rheostat. The floors are littered with paper and light packing material; the tops of steam radiators are used as a place of lodgment for oily rags, and the floor in the vicinity of the booth is

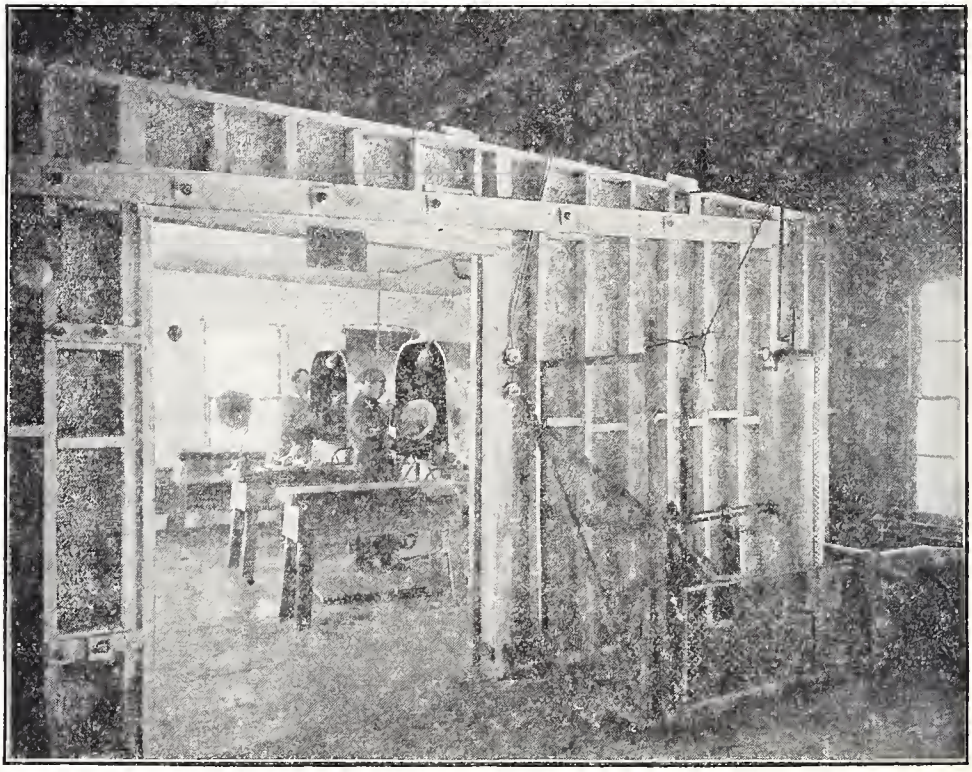

FIG. 2. SPRAYING-FINISHING RADIO HORNS

The finishing work in this establishment is safeguarded by convenient fireproof and ventilated booths, waterproofed floor and compressor air tank located outside the immediate labor premises. A fire door and fire-resistive wall partition adds to the safety of the building.

covered in spots by dried lacquer. The stock of finishing material consists of approximately five gallons of bronzing liquid and lacquers, and these are in original containers of small size stored on a shelf not far from the booth.

"The question that arises is, what should reasonable requirements for safety and protection be in such a case? It so happens that this building is not sprinkled. Bearing in mind that spraying operations are intermittent and that the average daily consumption of finishing material rarely exceeds one pint, it is apparent that a requirement for sprinklers in the room or in the booth is not justified. If sprinklers are not necessary, it also follows that floors need not be waterproofed. On the other hand, the owner of this establishment should be required to clean up the floor and maintain good

housekeeping. Metal waste cans with spring-closing covers should be provided for oily rags. With reference to storage of finishing materials, as the amount handled in this case is small, there can hardly be any criticism of storing such small amount in original containers on a shelf. On the other hand, the dried lacquer deposit on the floor indicates carelessness in filling the spray gun reservoir, hence the owner should be required to see to it that such reservoirs are filled within the spray hood. He should also be required to enclose the knife switch and rheostat. For first-aid purposes, a 2½ gallon foam type extinguisher should be provided and located within convenient reach of the spray booth.

"A manufacturer of lamps sprays lamp shades on the 10th floor of a 12-story sprinkled loft building of ordinary construction. In this instance, no spray booth is provided, the spraying operation being carried on in a frame enclosure open at the top. During operations the door of the enclosure is maintained in the open position. The articles to be finished are placed on a table and tilted in various positions in order to facilitate thorough spraying. An ordinary portable fan such as is used in offices during the summer, is placed on the table and turned on during spraying. In this particular case it is necessary to raise a window when spraying, as otherwise the vapor fumes are so strong as to affect the comfort of employes. Aniline dyes and shellac are used for finishing purposes. Outside of the spray enclosure, a considerable portion of the floor space is given over to the storage of finished lamp shades, the remaining floor space being littered with light combustible waste material.

"This particular case is a good illustration of how not to operate a spray process. About the only mitigating feature is the presence of automatic sprinklers, and the fact that rarely is more than a quart of material sprayed daily. An enclosure of the type described cannot under any condition safely serve in place of a spray booth. Here conditions are right for a flash fire that probably would result in the opening of a considerable number of sprinkler heads with consequent damage to goods on lower floors.

"The enclosure should be replaced with a suitable spray booth combining the necessary equipment for adequate ventilation. Such a booth would necessarily be small, hence a sprinkler within it would hardly be justified. Indeed, spraying operations here are so limited, and the amount of material sprayed daily so small, that sprinklers would not be required if they were not already provided. If the spraying is carried on in a well-ventilated booth, it is obvious that the probability of vapor backing out into the room and creating conditions favorable for flash fire is so remote as to not warrant consideration,

hence the aforesaid recommendation for waterproofing of floors need not be applied to this case. Housekeeping, however, should be improved and the owner required to maintain the floor in a clean condition. For first-aid purposes, a 2½ gallon foam type extinguisher should be provided and located within easy reach of the booth."

Manufacturers of spraying equipment have strongly urged proper installation, knowing, as they do, that if their products can be used without endangering property from fire, the industry can be established on a sounder basis.

Life and property are menaced when either a few simple and common-sense regulations are omitted or the necessary enclosures and proper equipment are carelessly neglected.

All inspection, comment, and advice have only one objective—fire safety.

VACUUM SWEEPER PROVIDES EXHAUST FOR ABRASIVE TOOLS

By C. B. Auel

Manager, Employes' Service Department

Westinghouse Electric and Manufacturing Company

The providing of suitable exhaust for grinders and sanders and other like machines has heretofore been comparatively expensive, unless the work has been in volume sufficient to warrant such machines being installed in batteries.

Even under these conditions the actual cost of grinding or sanding may still be out of all proportion, owing to the necessity usually of transporting the work from the department where made to the grinding department, simply for this one operation.

Realization of this situation has led the Westinghouse Electric and Manufacturing Company to adapt the vacuum sweeper to its needs, and so successful has it proved that the plan has now been installed in several of its plants.

Photographs Fig. 1 and Fig. 2 show a vacuum sweeper applied to a small belt sander, while photograph Fig. 3 gives an idea of the amount of dust accumulated in the course of a day, indicating that on the average the collector bag will hardly have to be emptied more than once or possibly twice each week.

Particular attention is called in passing, to the fact that the sander is generally considered a type of machine difficult to safeguard satisfactorily but the photographs clearly show how this has been accomplished and in such manner that the guard may be opened from different sides, so as to permit almost any kind of work to be done.

It is believed this use of a vacuum sweeper attachment marks a distinct advance in the handling of abrasive or dusty work and offers a simple and inexpensive solution for many of the perplexities encountered in small scale operations of this kind.

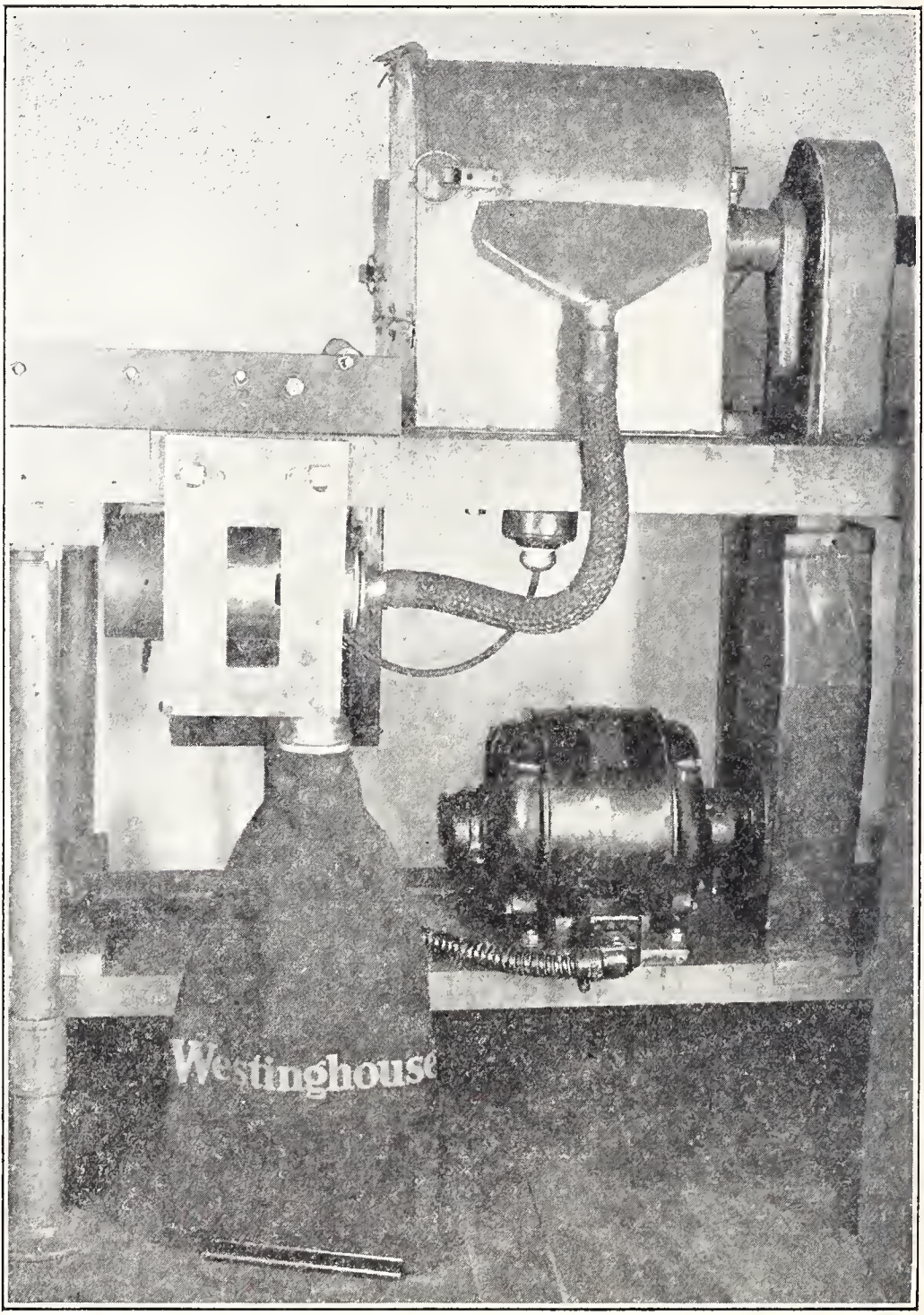

FIG. 3. SHOWING HOW VACUUM SWEEPER IS APPLIED TO SMALL BELT SANDER

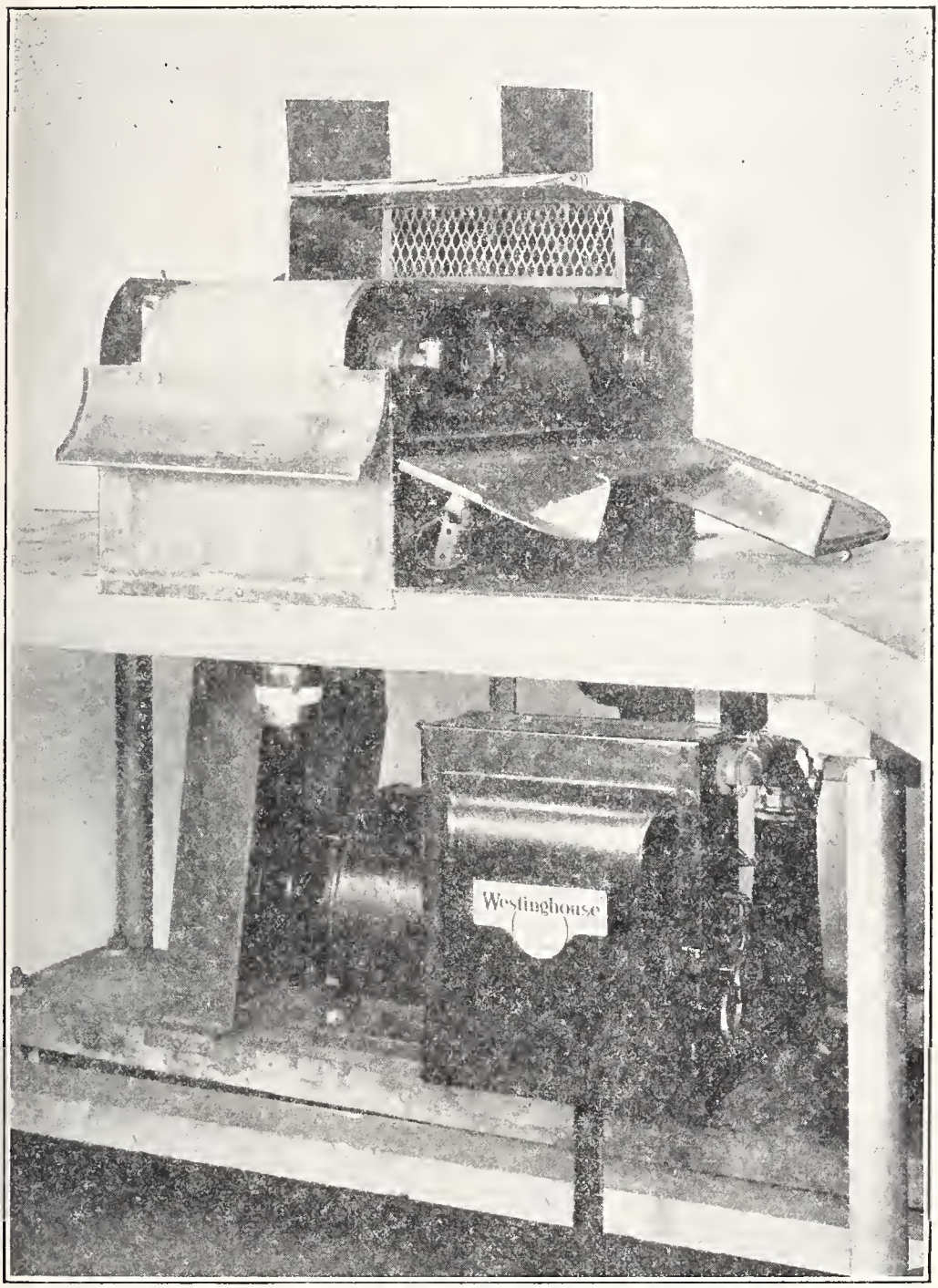

FIG. 4. FRONT VIEW OF SANDER SHOWING FACILITY WITH WHICH HINGED SECTIONS OF GUARD MAY BE THROWN OPEN

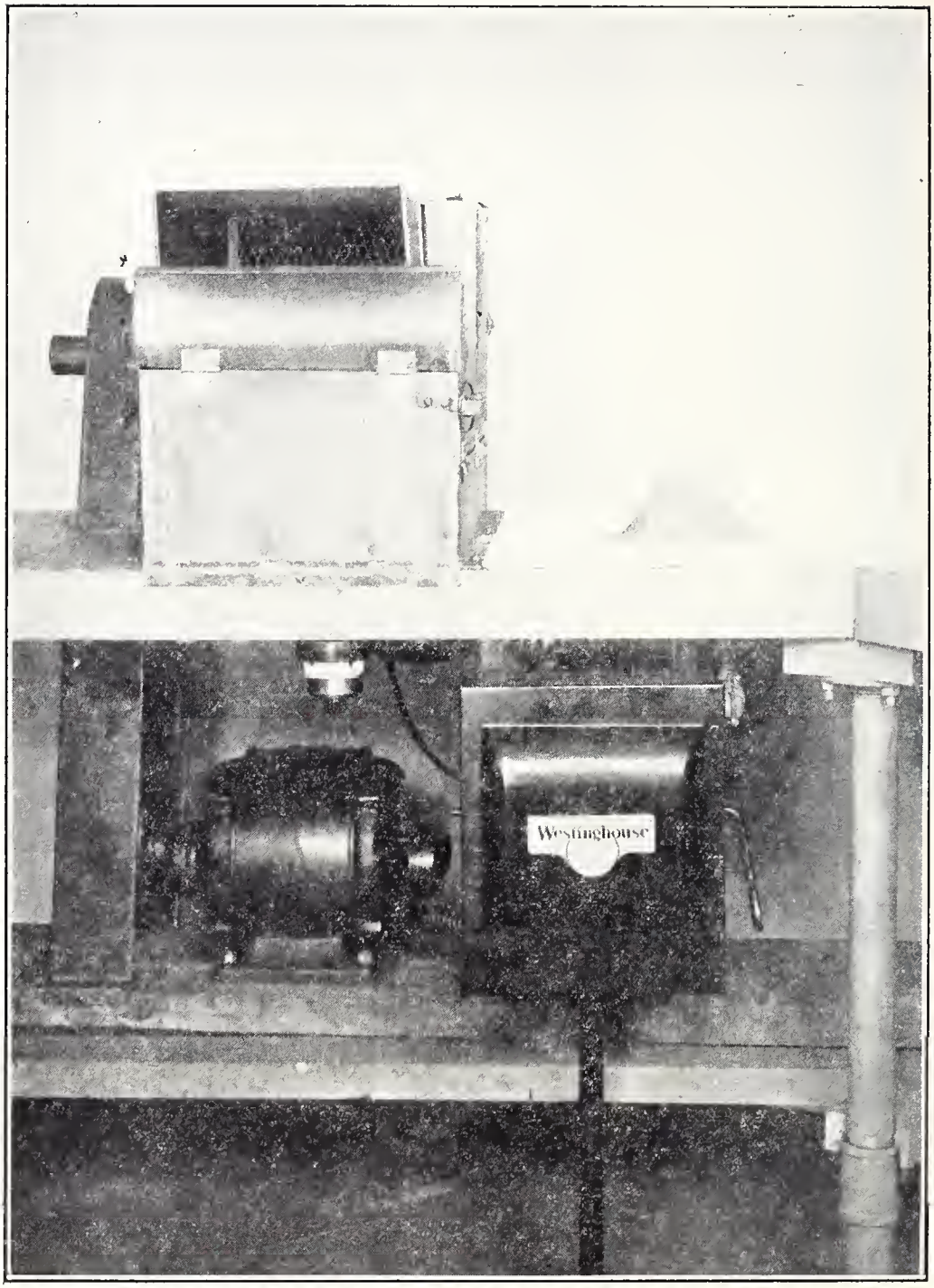

FIG. 5. SAME VIEW AS FIG. 4 WITH GUARD CLOSED. NOTE HEAP OF METAL DUST AT RIGHT, REPRESENTING ONE DAY'S ACCUMULATION OF VACUUM SWEEPER EXHAUST

THE STATE'S RELATION TO INDUSTRIES ORGANIZED FOR SAFETY*

By Harry D. Immel

Department of Labor and Industry

I once heard James H. Maurer, President of the Pennsylvania Federation of Labor, say in a talk at Harrisburg that to hold the attention of your audience and to bring out discussion, you ought to make it just a little bit mad. I want your attention and discussion without that if possible, but I am afraid I am going to make some of you a little bit mad whether I want to or not.

The subject of my talk today, "The State's Relation to Industries Organized for Safety," is my own choice. Mr. Auel kindly granted me that privilege. I selected it with a definite purpose in view. There has been some criticism of the attitude of the Department of Labor and Industry toward plants organized for safety. There isn't any portion of this Commonwealth where as many plants are doing as much safety work as right here in Allegheny County. I shall never have a better opportunity than this to find out what plant safety organizers really think of us, if I can provoke a frank discussion of your views.

I have been warned that you won't tell me what you really think. I hope that isn't correct. Whatever you say here won't do a bit of harm. It may do a lot of good. Maybe we, in the Department, only need to be better understood. Maybe we need to do some readjusting. I want to pledge to you that, if it is shown that we should do some revising of our policies, I shall not hesitate a moment to recommend such action to the Secretary. Mr. Huckestein and I are both new enough in our present positions not to feel that your criticism reflects on us personally. It wouldn't matter if it did. We know that we are among friends here and we should be able to cement that friendship by telling each other just what we think.

In the fewest words possible I am going to state the attitude of the Pennsylvania Department of Labor and Industry toward industries organized for safety and then in whatever period may be assigned for discussion you may criticise it.

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*Talk given by Harry D. Immel, Director, Bureau of Inspection, Pennsylvania Department of Labor and Industry, before Safety Engineering Conference at Pittsburgh, April 19, 1928.

Basicly our attitude toward industries organized for safety is the same as our attitude toward all industries. Primarily we are a law-enforcing agency. Certain mechanical requirements have been fixed by law and expanded in regulations which are obligatory upon industry in order to add to the worker's chances of avoiding injury and retaining his health. You and I both know that safety organization —safety education—with a minimum of mechanical aids, can produce more safety than can the strictest compliance with every law and regulation on our books without that education. But the obligation to provide those mechanical adjuncts is there. And it is our contention that, given two plants with safety organization of exactly the same efficiency, if that were possible, the one that has conformed to all requirements for mechanical safeguarding will show you more safety than the other. There are reasons for that, both practical and psychological.

Again, the plant without safeguards required by law is in the same position as the motorist speeding at 60 miles an hour along a public highway. Everything is all right while you get away with it. But if the speed law or regulation fixes 30 or 35 miles as a limit and you hit someone while going 60, you know your position in the eyes of the law and of the community. If one of your workers is hurt by gears that state safety regulations say should be guarded, your management is put into the position of having caused that injury while violating a safety law; compensation may be refused by your insurer and your concern made liable for damages under the civil law in addition to being answerable under the criminal law.

Most of the concerns organized for safety are the larger companies. For them complete mechanical safeguarding means an imposing outlay. But I submit that in proportion to size there is no difference in the burden imposed by compliance with our regulations entailing expense, be the place large or small. Many small factories in Pennsylvania today are fully guarded. A good many large plants are not. Usually, of course, the bigger the establishment the more careful the consideration of costs. We certainly have no fault to find with that. It has had much to do with making big industries big. Usually expenditures for extensive guarding programs must be anticipated in the annual budget. I know that a safety man doesn't want to make his estimates any higher than necessary. I know that he wants to have his management feel that he is holding his costs to the minimum and that sometimes he wants, at the same time, to leave himself a margin to devote to some experimental work of his own. I assure you that we wish to encourage this experimental work. It brings us some of the very best contributions to

mechanical safeguarding. But I have found that, if management is informed just why 100 per cent mechanical safeguarding is the right place from which to start a plant safety movement, and just why the plant's position with respect to safety is unsound until state regulations have been met, the funds to meet these requirements usually are forthcoming. I've gone to management with the safety man in a number of cases and always with that result. Say what you will about some other things being more important than some of our standard requirements, it's always a mighty proud safety man who says, "Look us over. We're 100 per cent guarded."

So it's our attitude that you're not right with us or with yourselves until you have laid down a definite program for full compliance with state safety regulations. We want you to welcome us in an inspection of your plant from end to end. In that inspection we want to check every requirement of our laws and codes that is lacking. We want to sit down with you with that list before us and figure out what we may agree upon as a reasonable period of time in which those things can be carried out, with the understanding that your judgment shall be considered in deciding the order in which the work shall be done, and that all new machinery installed or machinery relocated in the meantime shall be guarded to standard as it is placed. I have found that the way most satisfactory to all concerned to bring about full compliance with our safety regulation in the larger establishments. Once you have attained that position, it is not at all difficult to keep it.

In order to emphasize safety codes in this talk I have taken some time that I would have liked to devote to other phases of our relation to industries organized for safety. I would have liked to tell you just how much we in the Department of Labor and Industry feel that we owe to you, how we lean on you for inspiration and for encouragement in carrying safety education into every corner of the Commonwealth. Sometimes we get mighty blue down there in Harrisburg as accident reports come rolling in from every direction, and it seems that nothing we can do will check the needless sacrifice. Just about that time there comes a line from one of you or from one of our field force about you, telling of some of the remarkable things you are doing for safety. It is at times like that we are again made conscious of that most important aspect of our relationship, which is the strength that each may draw from the other for the advancement of our common cause.

INDUSTRIAL BOARD

The Industrial Board held its regular monthly meeting on March 20, 1928, when the following regulations and interpretations were approved:

REGULATIONS

1. Rule 256 (e) of the Elevator Regulations which prohibits the use of mechanism on the car beams of gravity elevators for car adjustment to various levels was changed so that it applies only to new installations of gravity elevators.

2. Rule 256 (j) of the Elevator Regulations which requires speed governors to be provided for gravity elevators was changed to apply only to new installations of such elevators.

3. Rule to regulate installation of pre-signal types of fire alarm systems to read as follows:

> "That the installation of pre-signal type fire alarm systems is prohibited except when permission is granted by the Industrial Board."

4. New revised regulations to regulate the construction, inspection, and operation of miniature boilers.

INTERPRETATIONS

1. Interpretation of Paragraph P-328 of the Boiler Regulations:

> "Automatic latches are not required by Paragraph P-328 of the Boiler Regulations or the Rule approved December 15, 1926, where such doors are otherwise constructed as to prevent them from being blown open by pressure on the furnace side."

2. Interpretation of Article 6, Paragraph (a) of the Elevator Regulations:

> "It is interpreted that Article 6, Paragraph (a) of the Elevator Regulations does not require fireproofing of existing shaftways where hand power elevators have been changed to power equipment, provided that all other requirements of the regulations for power driven elevators are complied with."

3. Interpretation of Section 3 of Act 466 of 1913 as amended 1915:

> "It is interpreted that where rest periods are allowed during a day's employment, in addition to the lunch period required by the Woman's Law, such rest periods must be considered to be within the time of daily employment and the time consumed by such periods shall be included in the hours of work allowed for women employes."

It is intended that the Rule on pre-signal fire alarm systems will, to better advantage, provide a means of control over the installation of such systems. The Department does not look with favor upon the installation of such systems in any type of building but recognizes that advantages are gained in certain classes of buildings where the occupancy is such that a general alarm is not desirable at the first alarm. By requiring such buildings to be individually approved before pre-signal systems are installed, there can be reasonable assurance that the fullest measure of fire alarm protection is extended to all buildings under the jurisdiction of the Department.

The interpretation of the Boiler Code, mentioned above, was handed down in order to clarify the present regulations which stipulate that boiler doors within seven feet of the working platform or floor shall be provided with automatic latches or otherwise fastened so that it will not be possible for pressure on the furnace side to blow them open.

The interpretation of Article 6 of the Elevator Regulations permits changing out-of-date elevator equipment operated by hand to modern power-driven equipment without the necessity of fireproofing the shaftway. Fireproofing shaftways of such installations had heretofore been required when changes were made from hand-operated to power-driven operation.

The interpretation of the Woman's Law was rendered in answer to a request from a firm to employ women ten hours and twenty minutes every day, the twenty minutes being the time allowed for rest periods during the day. The maximum hours of employment allowed by Act 466 of 1913 are ten per day for women employes.

Meetings of the Boiler and Elevator Advisory Boards of the Department were held during the month of March and a considerable volume of business was transacted. These Boards serve as Advisory Boards on matters relating to boilers and elevators and also conduct examinations for those desiring commissions as boiler and elevator inspectors. Meetings are held quarterly and at the March meeting four applicants took the examination for boiler inspector's commissions and ten for elevator inspector's commissions.

The following regulations were approved by the Industrial Board at its meeting on April 18, 1928:

1. Regulations for Abrasive and Polishing wheels.

2. Amendment to Elevator Regulations changing Rule 254 (A) (NI) to read as follows:

> "Single or double belted or chain drive elevators shall be of the worm gear type and shall be overbalanced at least one-third."

3. Addition to present Rule 242 (a) of the Elevator Regulations reading as follows:

> "Substantial stops shall be provided for both sections of vertical bi-parting elevator doors to prevent either door from dropping below the range of normal travel."

The regulations covering the construction and use of abrasive and polishing wheels are substantially the same as the standards drafted on that subject by the American Engineering Standards Committee.

A committee representative of interests affected by these rgulations in Pennsylvania was appointed to consider the A. E. S. C. Standards as a basis for regulations in Pennsylvania and the tentative draft as recommended by that committee was distributed throughout the State and public hearings held with a view of obtaining constructive criticism.

These hearings were held in Philadelphia, Pittsburgh, Erie, Wilkes-Barre and Harrisburg and the regulations as now approved took into consideration the criticism received on the tentative Code.

The approved Code consists of three sections; one on Administration; one on Definitions, and one on Specifications. Section three is subdivided into three parts including an Appendix. Part One consists of rules on types of protection, devices, handling and storage, general machine requirements, protection hoods, work rests, protection for cups, cylinders, and sectional ring wheels, flanges, mounting of wheels, operating rules, and speed. Part Two consists of exhaust requirements. The Third Part is the Appendix.

Copies of these regulations may be secured upon application to the Department.

The amendment to Rule 254 (a) of the Elevator Regulations will permit the installation of belt driven elevators provided that all safety requirements of other rules in the Elevator Code are met. Heretofore belt driven equipment was prohibited over travels of two stories or 25 feet or for capacities in excess of five thousand pounds.

The addition to Rule 242 (a) of the Elevator Regulations provides for protection which is now commonly provided by making such protection mandatory. Substantial stops will be required for both sections of vertical closing fire doors so that in case the chains connecting these sections break, the doors will be unable to fall below the normal range of travel. Compliance with this rule will prevent a very serious type of accident.

The following devices were approved at this meeting of the Industrial Board:

Name of Company	*Device*
Otis Elevator Company, New York City.	Type "L" Locking Device for automatic control passenger elevators when provided with retiring cams and properly installed.
Otis Elevator Company, New York City.	Type 12-0 Gate Locking Device.
Otis Elevator Company, New York City.	Type 2-B Door Closer and Locking Device for automatic control elevators when provided with retiring cam and properly installed.
Marshall Brothers Company, Pittsburgh, Pa.	Type A-3501-1-2 Automatic Opening and Closing Device for automatic control elevators when used in connection with approved locking devices.
Graham & Norton Company, New York City.	Norton Pneumatic Door Operator, overhead type number AA-80 for passenger elevators when provided with retiring cams and properly installed with 3″ range.
Elevator Supplies Co., Inc., Hoboken, N. J.	"ES" type "B" Overhead Pneumatic Door Operator and type "C" Locking Device for passenger elevators with car switch control when provided with retiring cams and properly installed with 3″ range.
Warsaw Elevator Company, Warsaw, N. Y.	Extension of previous approval of Number 2 Wedge Clamp Safety to passenger elevators regardless of speed.
Gurney Elevator Company, Honesdale, Pa.	Extension of approval of Numbers 4 and 5 Roll Type Car Safeties to passenger elevators up to 100 feet per minute.
Steffens-Amberg Company, Newark, N. J.	Types 80 and "Saco" Panic Bolts.

DEPARTMENTAL NOTE

William J. Maguire of this Department has been appointed a member of a committee to standardize accident statistics. The committee is known as the American Engineering Standards Committee of the American Engineering Society.

The work will consist of revising the standards for accident statistics adopted by the International Association of Industrial Accident Boards and Commissions in 1915.

The sponsors for the work of this committee are the International Association of Industrial Accident Boards and Commissions, the Association of Governmental Labor Officials, and the National Safety Council.

The suggestion to revise present standards of industrial accident statistics was made at the industrial accident prevention conference, called by Secretary of Labor James J. Davis, at Washington, D. C., July, 1926.

An organization meeting of the committee was held in New York City March 9, 1928, and the work definitely started. It is hoped that the work of this committee will establish standards for accident statistics that can be adopted by all agencies engaged in compiling or using industrial accident statistics.

Other Pennsylvania men who are members of the committee are: John Price Jackson, former Commissioner of Labor and Industry, now of the New York Edison Company; C. B. Auel, Westinghouse Electric and Manufacturing Company; E. F. Blank, Jones and Laughlin Steel Company; and Major A. J. Reninger, the Portland Cement Company.

REVIEW OF INDUSTRIAL STATISTICS

PREPARED BY

THE BUREAU OF STATISTICS

THE LABOR MARKET

Employment reports for March, 1928, show practically the same conditions prevailing as in February. Some slight improvement in employment was noted in the reports from State Employment offices. The ratio of applicants to openings was reduced for the second consecutive month. The peak of unemployment evidently was reached in January. The State Employment office records for January showed a total of 325 applicants registered for every 100 jobs available which was the highest surplus of workers over jobs reported during the last six years. This ratio of applicants to jobs dropped from 325 in January to 296 in February, and to 275 in March, a 22 per cent decline within two months. While the March surplus of workers over jobs is far too high to be passed over lightly, the fact that the unemployment ratio has shown a perceptible reduction during the last two months should help to relieve the prevalent feeling of uneasiness over the employment situation. With the opening up of outdoor work during April and May many more jobs will become available and unemployment will decrease in proportion, at least that has been the trend as indicated by State Employment office reports during the last five years. Of course, since the present level of unemployment is higher than it has been for some years, it naturally follows that spring business activity in 1928 must be of a greater volume than usual if unemployment is to be materially reduced. The surplus of workers recorded at State Employment offices for March, 1928, is 23 per cent higher than for March, 1927, and 45 per cent higher than for March, 1926.

The employment office reports for March, 1928, show that a total of 10,463 persons applied for work during the month, of whom approximately 41 per cent were women. Only 3,811 persons were needed by employers, the demand being split in about the same proportion as applicants, 60 per cent for male and 40 per cent for female help. Positions were secured for 1,655 men and 1,016 women during the month. Out of a total of 10,463 applicants who registered at State Employment offices during the month, jobs could be located for only 2,671 or 25 per cent.

Calls for workers were light in virtually every industry. The demand for construction workers improved slightly. Employment of women in the clothing and textile industries was brisk, but the numbers needed to fill vacancies were small. The reopening of steel plants in a few districts created some demand for steel workers, but employment officers had no difficulty in filling all orders. Few workers were needed in transportation lines, many railroad employes on furlough are yet to be recalled. Stores seem well supplied with workers, and even the pre-Easter trade did not create any strong demand for store clerks. Calls for day workers were increasing with the start of spring house cleaning, but there were enough applicants for day work to fill every opening twice. That a rather good grade of day workers is handled through State Employment offices is evidenced by the fact that out of 481 women day workers sent to jobs during the month 476 were employed.

Harrisburg continued in March to be relatively the most favored district in the Commonwealth from the employment securing viewpoint. The ratio of 147 applicants for every 100 openings in Harrisburg was the lowest reported for any of the nine districts where full-time State Employment offices are maintained. Erie was the second best place of employment opportunity with a ratio of 192 applicants for every 100 jobs available. Employment openings in Allentown, Altoona, and Philadelphia, ranking next in order, were at about the same level for all three cities, with ratios of 251, 255, and 256 respectively. Pittsburgh and Scranton offered the least chances for employment in the Commonwealth applicants outnumbering jobs by more than 4 to 1 in each city.

EMPLOYMENT, WAGES, AND HOURS WORKED

Manufacturing employment in March showed scarcely any change from February. Reports from 806 firms in February showed a total employment figure of 265,480 persons. The total employment for these same identical firms in March was 265,410, a decrease of only 70 workers, or less than one-tenth of one per cent. Last year between February and March, an employment increase of 0.2 per cent was shown.

Slightly reduced operations were indicated by declines in wage payments and man-hours. Weekly wage payments for March for these 806 firms were $55,000 or 0.8 per cent, less than in February. Man-hours as reported by 480 firms in March show a decline of 0.3 per cent compared with February.

Notwithstanding the absence of signs of seasonal expansion for manufacturing industries as a whole, many individual industry groups show substantial gains in employment and payrolls. The

metal industries, however, were for the most part conspiciously dull. Few metal groups showed any gain in employment over February. The electrical apparatus group showed the largest decline. One large firm in this group laid off nearly 700 men during March and small decreases in employment were reported by eight other firms.

Automobile plants reflecting the increased sales of the last few months show an employment gain of 6.9 per cent over February. Wage payments were 15.4 per cent higher. Factories manufacturing auto bodies and parts, however, show a 10 per cent decline in employment. The report of one company was largely responsible for this decrease. Other smaller firms seemed fairly busy and were taking on a few workers.

In the textile and clothing industries many seasonal declines were reported. Woolens and worsteds, carpets and rugs, and women's clothing showed the largest declines. Dye works were busy, and employment for this group was 11.4 per cent higher than in February.

Milder weather brings the usual increase in business for ice cream factories, nearly all plants are increasing forces to take care of the expanded spring trade.

Employment increases in the cigar industry seem limited to the factories of the large corporations. Small independent factories report over-production and dull business. Many of the smaller cigar factories were working only 3 days a week in March.

Fifteen of the 23 glass manufacturers report increased employment. Manufacturers of glassware and glass bottles report exceptionally good business, and the demand for building glass is seasonally higher.

Furniture factories are curtailing production, and reductions in employment were reported by 10 of the 20 firms in this group. Increased business is reported by nearly all wooden box manufacturers.

Rubber tire factories that have been working short time have gone back to normal schedules resulting in a material improvement in the weekly earnings of workers.

Construction employment continued to decline in March. A 6 per cent decrease in employment was shown by the reports received from 36 firms during March. Wage payments to construction workers for March fell 10 per cent below those for February, average earnings of workers were 4.2 per cent less. The total of hours worked by 31 construction firms during March was 8.3 per cent less than in February.

While there was no marked movement in the trend of manufacturing employment or wages during March, many individual groups

seemed to respond favorably to seasonal influences. The general employment situation, while it is not particularly bright, has shown considerable improvement during the last two months.

INDUSTRIAL ACCIDENTS AND COMPENSATION COSTS

Reports for March, 1928, show that 150 fatal and 12,539 non-fatal accidents were reported to the Bureau of Workmen's Compensation during the month. While the March accident totals are slightly higher than those for February, they are decidedly lower than those for March, 1927. Fatalities for March, 1928, are 13 less than for March, 1927, and non-fatal accidents are 1,793 or 12.5 per cent less.

Accident totals for the first quarter in 1928 and for the corresponding period in 1927 compare as follows:

YEAR	FATAL ACCIDENTS	NON-FATAL ACCIDENTS
1927	517	41,930
1928	459	36,426
Decrease in 1928	—58 (11.2%)	—5,504 (13.1%)

The analysis of fatal accident figures for the first three months in 1928 shows that the reduction in accidents is general throughout nearly all industry groups. Only three industry groups—trading, state and municipal, and miscellaneous—show increases in fatal accidents over the first quarter of last year. All other industry groups show decreases. The fatal accident totals for the various industry groups for the first three months in 1928 compared with the totals for the same period in 1927 are as follows:

INDUSTRY	1st Quarter 1928	1st Quarter 1927	Increase (+) or Decrease (—) in 1928
ALL INDUSTRIES	459	517	—58
Construction and contracting	44	48	— 4
Manufacturing	94	115	—21
Anthracite coal mining	115	117	— 2
Bituminous coal mining	90	109	—19
Quarrying and non-coal mining	6	14	— 8
Steam railroads	36	49	—13
Other transportation	6	10	— 4
Public utilities	6	9	— 3
Trading	17	13	+ 4
Hotels and restaurants	0	1	— 1
State and municipal	27	19	+ 8
Miscellaneous	18	13	+ 5

It is seen from this table that manufacturing industries, anthracite coal mines, and steam railroads show the largest reductions in fatalities. The reduced volume of employment in the bituminous industry in 1928, no doubt, is largely responsible for the reductions shown in that industry, but in the manufacturing industries and on steam railroads, the proportion of accident reduction is far greater than the proportion of reduced employment, and the reduced fatality rates for these two groups may be considered rightfully as being due to accident-prevention work rather than being entirely the result of reduced employment.

Some very interesting changes are shown in the analysis of causes of fatal accidents. Falling objects killed 117 workers during the first three months of 1928, compared with 156 for the same period last year, a 25 per cent reduction. Eighty-two persons were killed by cars and engines this year compared with 104 last year, a 21 per cent decrease. Explosive substances were the third highest cause of fatalities during the first quarter of this year, and is the only cause group showing any considerable increase. Explosive substances were the cause of 52 fatalities this year compared with 39 for the first three months last year. Other causes of fatal accidents during the first three months in 1928 were as follows: falls of persons 51, the same number as last year; motor vehicles 32, an increase of 1; handling objects 19, a gain of 6; machinery 16, an increase of 1; elevators and hoists 15, a gain of 2; cranes and derricks 13, an increase of 1; electricity 12, a decrease of 3; hot and corrosive substances 8, a drop of 4; transmission 4, or 3 less; vehicles other than motor vehicles 4, the same number as last year; hand tools 4, a decrease of 7; pumps and prime movers 2, the same as last year; stepping upon or striking against objects 2, a decrease of 4; boilers and pressure apparatus 1, or 1 less; water and air craft 1, a decline of 5; and miscellaneous causes 24, a gain of 6 over last year.

Compensation payments were authorized during March by the approval of agreements in 6,425 cases. The total amount of compensation to be paid in accordance with these agreements is $1,196,186, distributed as follows:

124 fatal cases	$395,997
331 permanent disability cases	390,960
5,970 temporary disability cases	419,229

Compensation awards for the first three months of 1928 total $3,255,037, or 6 per cent more than the total for the first three months in 1927. Receipts filed with the Bureau of Workmen's Compensation

show that actual compensation payments during the first three months of this year amounted to $2,757,274, a gain of 11.6 per cent over last year.

It is interesting to see how the compensation cases brought under the act by reducing the non-compensable waiting period from 10 to 7 days are increasing from month to month. In January, 1928, the first month that this provision of the Act was operative, cases in the 8 to 10 day group numbered only 45; in February the number of 8 to 10 day cases rose to 384; and in the March total of compensation cases, 572 were within the 8 to 10 day group. In other words, this reduction of the waiting period from 10 to 7 days has caused an actual increase of nearly 6 per cent in the total number of compensation cases for the first three months in 1928.

Permanent disability cases for the first three months in 1928 were 8 per cent less than for the same period in 1927. The greatest improvement was shown for finger-loss cases. Finger losses dropped from 399 for the first quarter in 1927 to 310 for the first three months in 1928, a decrease of 22 per cent. Part-finger losses were 5 per cent less than last year. Eye losses numbered 12 less than last year, hand losses were 8 less, and leg losses were 12 less. Two groups showed increases—arm losses for the first three months in 1928 were 23, or 2 more than last year; and foot losses were 45, or 9 more than last year.

Temporary disability cases compensated during the first quarter of 1928 show an 18 per cent increase in severity over those for the first three months in 1927. The day loss for temporary disability cases compensated during the first three months in 1928 averaged 46 days compared with 39 days for the cases compensated during the corresponding period last year.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF MARCH, 1928.

Industries	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	10,463	6,139	4,324	3,811	2,302	1,509	4,292	2,507	1,785	2,671	1,655	1,016
Total: Industrial group (skilled)	3,826	2,575	1,251	1,270	911	359	1,509	970	539	659	507	152
Building and construction	656	656		254	254		270	270		143	143	
Shipbuilding	35	35		20	20		20	20		8	8	
Chemicals and allied products	1	1										
Clay, glass and stone products	2	2		1	1		1	1		1	1	
Clothing	32	8	24	47	5	42	25	7	18	9	2	7
Textiles	30	18	12	27	1	26						
Food and kindred products	40	30	10	13	4	9	11	3	8	9	2	7
Leather, rubber and composition goods	19	18	1									
Lumber, woodwork and furniture	33	33		11	10	1	9	7	2	5	5	
Paper and printing	21	19	2	13	12	1	14	13	1	9	9	
Metals and metal products	748	741	7	377	372	5	379	372	7	187	182	5
Mines and Quarries	5	5		1	1		1	1		1	1	
Transportation and public utilities	491	473	18	150	148	2	168	163	5	98	96	2
Hotel and restaurant	253	55	198	75	15	60	108	16	92	44	12	32
Wholesale and retail trade	219	48	171	79	4	75	89	3	86	25	3	22
Miscellaneous	1,241	433	808	202	64	138	414	94	320	120	43	77
Total: Other groups	6,637	3,564	3,073	2,541	1,391	1,150	2,783	1,537	1,246	2,012	1,148	864
Professional and technical	607	499	108	202	178	24	267	221	46	90	85	5
Agriculture	25	25		16	16		14	14		11	11	
Semi-skilled	2,354	726	1,628	798	188	610	880	206	674	486	135	351
Unskilled	2,304	2,055	249	858	819	39	935	890	45	759	727	32
Casual and day workers[1]	1,347	259	1,088	667	190	477	687	206	481	666	190	476
February, 1928	8,754	5,627	3,127	2,961	1,989	972	3,214	2,143	1,071	2,193	1,528	665
January, 1928	9,741	6,477	3,264	2,996	1,858	1,138	3,220	2,028	1,192	2,062	1,334	728
December, 1927	9,906	6,623	3,283	3,984	2,505	1,479	4,084	2,617	1,467	2,949	1,975	974
March, 1927	14,108	9,484	4,624	6,594	4,368	2,226	6,740	4,494	2,246	5,606	3,848	1,758
March, 1926	13,474	9,079	4,395	8,885	6,116	2,769	9,239	6,495	2,744	7,818	5,575	2,243
March, 1925	13,908	9,740	4,168	8,108	6,208	1,900	8,454	6,662	1,792	7,347	5,883	1,464

[1] The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WA GES IN PENNSYLVANIA

Group and Industry	No. of Plants Reporting	Number of Wage Earners Week Ended			Total Weekly Wages Week Ended			Average Weekly Earnings Week Ended		
		Mar. 15 1928	Feb. 15 1928	Per cent change	Mar. 15 1928	Feb. 15 1928	Per cent change	Mar. 15 1928	Feb. 15 1928	Per cent change
ALL INDUSTRIES: (52)	806	265,410	265,480	— 0.0	$6,928,643	$6,983,450	— 0.8	$26.11	$26.30	— 0.7
Metal Products:	238	103,649	104,442	— 0.8	2,958,715	3,012,106	— 1.8	28.55	28.84	— 1.0
Blast furnaces	10	2,413	2,390	+ 1.0	68,101	69,594	— 2.1	28.22	29.12	— 3.1
Steel works and rolling mills	44	54,782	55,248	— 0.8	1,612,404	1,644,777	— 2.0	29.43	29.77	— 1.1
Iron and steel forgings	10	1,838	1,844	— 0.3	46,971	49,507	— 5.1	25.56	26.85	— 4.8
Structural iron work	10	3,696	3,608	+ 2.4	102,313	102,876	— 0.5	27.68	28.51	— 2.9
Steam and hot water heating apparatus	17	4,695	4,681	+ 0.3	142,828	141,322	+ 1.1	30.42	30.19	+ 0.8
Stoves and furnaces	8	884	929	— 4.8	23,298	24,040	— 3.1	26.36	25.88	+ 1.9
Foundries	40	7,508	7,444	+ 0.9	206,993	206,073	+ 0.4	27.57	27.68	— 0.4
Machinery and parts	39	8,998	8,843	+ 1.8	274,036	268,768	+ 2.0	30.46	30.39	+ 0.2
Electrical apparatus	17	7,118	7,878	— 9.6	182,429	214,913	—15.1	25.63	27.28	— 6.0
Engines and pumps	10	3,336	3,298	+ 1.2	95,032	92,581	+ 2.6	28.49	28.07	+ 1.5
Hardware and tools	19	6,344	6,255	+ 1.4	152,954	146,312	+ 4.5	24.11	23.39	+ 3.1
Brass and bronze products	10	683	695	— 1.7	19,634	19,869	— 1.2	28.75	28.59	+ 0.6
Jewelry and novelties	4	1,354	1,329	+ 1.9	31,722	31,474	+ 0.8	23.43	23.68	— 1.1
Transportation Equipment:	38	27,421	28,040	— 2.2	779,348	808,601	— 3.6	28.42	28.84	— 1.5
Automobiles	4	2,081	1,947	+ 6.9	77,484	67,157	+15.4	37.23	34.49	+ 7.9
Automobile bodies and parts	11	6,864	7,689	—10.7	208,238	235,512	—11.6	30.34	30.63	— 0.9
Locomotives and cars	13	13,395	13,179	+ 1.6	357,635	354,288	+ 0.9	26.70	26.88	— 0.7
Railroad repair shops	7	3,534	3,435	+ 2.9	94,037	93,598	+ 0.5	26.61	27.25	— 2.3
Ship building	3	1,547	1,790	—13.6	41,954	58,046	—27.7	27.12	32.43	—16.4
Textile Products:	168	60,606	60,289	+ 0.5	1,359,567	1,365,543	— 0.4	22.43	22.65	— 1.0
Cotton goods	14	4,040	4,086	— 1.1	85,307	93,626	— 8.9	21.12	22.91	— 7.8
Woolen and worsteds	16	6,224	6,671	— 6.7	122,303	142,795	—14.4	19.65	21.41	— 8.2
Silk goods	42	20,928	20,358	+ 2.8	441,235	420,436	+ 4.9	21.08	20.65	+ 2.1
Textile dyeing and finishing	9	2,109	1,893	+11.4	51,550	50,130	+ 2.8	24.44	26.48	— 7.7
Carpets and rugs	10	2,663	2,817	— 5.5	64,039	69,537	— 6.6	24.39	24.68	— 1.2
Hats	5	3,936	3,862	+ 1.9	108,377	107,204	+ 1.1	27.53	27.76	— 0.8
Hosiery	27	12,116	11,916	+ 1.7	331,293	324,386	+ 2.1	27.34	27.22	+ 0.4
Knit goods, other	15	2,950	2,870	+ 2.8	55,400	55,345	+ 0.1	18.78	19.28	— 2.6
Men's clothing	10	1,672	1,693	— 1.2	37,178	39,077	— 4.9	22.24	23.08	— 3.6
Women's clothing	9	1,355	1,490	— 9.1	21,256	22,930	— 7.3	15.69	15.39	+ 1.9
Shirts	11	2,613	2,633	— 0.8	40,729	40,077	+ 1.6	15.59	15.22	+ 2.4

Foods and Tobacco:	99	21,983	21,454	+ 2.5	$455,854	$439,895	+ 3.6	$20.74	$20.50	+ 1.2
Bread and bakery products	29	4,286	4,286	0.0	124,061	125,277	— 1.0	28.95	29.23	— 1.0
Confectionery	14	4,155	4,394	— 5.4	85,304	84,353	+ 1.1	20.53	19.20	+ 6.9
Ice cream	10	1,217	1,142	+ 6.6	40,045	37,449	+ 6.9	32.90	32.79	+ 0.3
Meat packing	14	2,027	2,062	— 1.7	57,311	60,428	— 5.2	28.27	29.31	— 3.5
Cigars and tobacco	32	10,298	9,570	+ 7.6	149,138	132,368	+12.7	14.48	13.83	+ 4.7
Stone, Clay and Glass Products:	66	17,247	16,545	+ 4.2	459,491	445,694	+ 5.3	27.22	26.94	+ 1.0
Brick, tile and pottery	29	4,416	4,258	+ 3.7	109,166	104,241	+ 4.7	24.72	24.49	+ 0.9
Cement	14	5,674	5,785	— 1.9	167,692	168,506	— 0.5	29.55	29.14	+ 1.4
Glass	23	7,157	6,502	+10.1	192,633	172,857	+11.4	26.92	26.59	+ 1.2
Lumber Products:	45	4,437	4,468	— 0.7	96,085	98,934	— 2.9	21.66	22.14	— 2.2
Lumber and planing mills	19	1,955	1,954	+ 1.6	44,333	44,249	+ 0.1	22.33	22.67	— 1.5
Furniture	20	1,697	1,871	— 9.3	39,608	43,749	— 9.5	23.34	23.39	— 0.2
Wooden boxes	6	755	643	+17.4	12,144	10,876	+11.7	16.08	16.91	— 4.9
Construction and Contracting:*	36	2,803	2,981	— 6.0	86,704	96,206	— 9.9	30,93	32,27	— 4.2
Building	19	1,000	1,100	— 9.2	34,483	39,077	—11.8	31.64	32.56	— 2.8
Street and highway	4	262	252	+ 4.0	6,952	6,914	+ 0.5	26.53	27.44	— 3.3
General	13	1,451	1,529	— 5.1	45,269	50,215	— 9.8	31.20	32.84	— 5.0
Chemical Products:	46	10,918	10,864	+ 0.5	316,783	320,402	— 1.1	29.01	29.49	— 1.6
Chemicals and drugs	25	1,447	1,400	+ 3.4	39,953	38,219	+ 1.5	27.61	27.30	+ 1.1
Coke	3	2,795	2,800	— 0.2	81,766	85,713	— 4.6	29.25	30.61	— 4.4
Explosives	3	517	531	— 2.6	11,530	13,257	—12.8	22.36	24.97	—10.5
Paints and varnishes	9	1,040	1,038	+ 0.2	27,540	28,128	— 2.1	26.48	27.10	— 2.3
Petroleum refining	5	5,119	5,095	+ 0.5	155,964	155,085	+ 0.6	30.47	30.44	+ 0.1
Leather and Rubber Products:	50	11,648	11,810	— 1.4	265,716	266,146	— 0.2	22.81	22.54	+ 1.2
Leather tanning	17	5,863	5,919	— 0.9	147,582	146,020	+ 1.1	25.17	24.67	+ 2.0
Shoes	22	4,203	4,280	— 1.8	76,072	81,409	— 6.6	18.10	19.02	— 4.8
Leather products, other	7	691	654	— 8.1	13,423	13,333	+ 0.7	22.33	20.39	+ 9.5
Rubber tires and goods	4	981	957	+ 2.5	28,639	25,284	+12.8	29.19	26.52	+10.1
Paper and Printing:	56	7,501	7,568	— 0.9	227,084	226,129	+ 0.4	30.27	29.88	+ 1.3
Paper and wood pulp	12	3,099	3,140	— 1.3	90,108	92,552	— 2.6	29.08	29.48	— 1.4
Paper boxes and bags	6	655	671	— 2.4	10,244	9,740	+ 5.2	15.64	14.52	+ 7.7
Printing and publishing	38	3,747	3,757	— 0.3	126,732	123,837	+ 2.3	33.82	32.96	+ 2.6

*Not included in total for all industries.

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Concluded)

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Man-Hours Week Ended			Average Hourly Wages Week Ended		
		March 15 1928	February 15 1928	Per cent change	March 15 1928	February 15 1928	Per cent change
ALL INDUSTRIES: (48)	480	7,541,571	7,562,114	— 0.3	$.561	$.564	— 0.5
Metal Products:	171	3,585,553	3,620,121	— 1.0	.603	.603	0.0
Blast furnaces	8	113,305	107,860	+ 5.0	.557	.599	— 7.0
Steel works and rolling mills	27	1,892,192	1,941,070	— 2.5	.628	.625	+ 0.5
Iron and steel forgings	8	69,081	67,985	+ 1.6	.574	.574	0.0
Structural iron work	6	65,862	63,627	+ 3.5	.579	.576	+ 0.5
Steam and hot water heating app.	11	134,634	138,832	— 3.0	.608	.606	+ 0.3
Foundries	35	320,257	320,798	— 0.2	.605	.601	+ 0.7
Machinery and parts	30	376,697	366,325	+ 2.8	.598	.600	— 0.3
Electrical apparatus	13	183,221	190,247	— 3.7	.506	.517	— 2.1
Engines and pumps	10	159,788	156,104	+ 2.4	.595	.593	+ 0.3
Hardware and tools	12	180,118	176,018	+ 2.3	.530	.525	+ 1.0
Brass and bronze products	8	32,974	33,833	— 2.5	.565	.558	+ 1.3
Jewelry and novelties	3	57,424	57,432	— 0.0	.496	.496	0.0
Transportation Equipment:	30	845,947	851,540	— 0.7	.613	.632	— 3.0
Automobiles	4	120,744	105,654	+14.3	.642	.636	+ 0.9
Automobile bodies and parts	9	347,738	367,962	— 5.5	.587	.631	— 7.0
Locomotives and cars	9	227,091	211,942	+ 7.1	.604	.587	+ 2.9
Railroad repair shops	5	87,441	84,159	+ 3.9	.659	.676	— 2.5
Shipbuilding	3	62,933	81,823	—23.1	.667	.709	— 5.9
Textile Products:	76	1,348,180	1,344,381	+ 0.3	.446	.445	+ 0.2
Cotton goods	11	68,959	70,101	— 1.6	.482	.475	+ 1.5
Woolens and worsteds	10	121,316	144,729	—16.2	.451	.478	— 5.6
Silk goods	23	626,969	605,144	+ 3.6	.441	.427	+ 3.3
Textile dyeing and finishing	4	33,407	33,185	+ 0.7	.482	.527	— 8.5
Carpets and rugs	4	77,730	74,159	+ 4.8	.477	.520	— 8.3
Hosiery	6	267,001	263,952	+ 1.2	.486	.483	+ 0.6
Knit goods, other	7	50,693	46,561	+ 8.9	.381	.398	— 4.3
Men's clothing	3	5,636	5,686	— 0.9	.275	.256	+.7.4
Women's clothing	4	36,452	38,650	— 5.7	.371	.392	— 5.4
Shirts and furnishings	4	60,017	62,214	— 3.5	.327	.304	+ 7.6

Foods and Tobacco:	44	311,981	314,615	— 0.8	$.490	$.488	+ 0.4
Bread and bakery products	17	74,768	78,094	— 4.3	.526	.518	+ 1.5
Confectionery	5	100,434	104,507	— 3.9	.444	.424	+ 4.7
Ice cream	8	46,364	44,060	+ 5.2	.585	.584	+ 0.2
Meat packing	9	58,635	59,621	— 1.7	.536	.548	— 2.2
Cigars and tobacco	5	31,780	28,333	+12.2	.324	.369	—12.2
Stone, Clay and Glass Products:	37	511,259	496,410	+ 3.0	.557	.559	— 0.4
Brick, tile and pottery	16	129,247	126,296	+ 2.3	.529	.530	— 0.2
Cement	8	160,471	169,710	— 5.4	.522	.515	+ 1.4
Glass	13	221,541	200,404	+10.5	.599	.615	— 2.6
Lumber Products:	36	112,861	121,426	— 7.1	.507	.502	+ 1.0
Lumber and planing mills	15	45,528	43,180	+ 5.4	.511	.525	— 2.7
Furniture	17	55,785	66,516	—16.1	.528	.509	+ 3.7
Wooden boxes	4	11,548	11,730	— 1.6	.387	.380	+ 1.8
Construction and Contracting:*	31	104,712	114,189	— 8.3	.759	.774	— 1.9
Buildings	17	41,453	44,495	— 6.8	.776	.820	— 5.3
Street and highway	4	11,064	11,446	— 3.3	.628	.604	+ 4.0
General	10	52,195	58,248	—10.4	.773	.772	+ 0.1
Chemical Products:	20	300,772	302,519	— 0.6	.587	.574	+ 2.3
Chemicals and drugs	11	48,561	47,440	+ 2.4	.485	.487	— 0.4
Paints and varnishes	6	45,275	45,221	+ 0.1	.550	.548	+ 0.4
Petroleum refining	3	206,938	209,858	— 1.4	.619	.599	+ 3.3
Leather and Rubber Products:	28	267,800	254,179	+ 5.4	.474	.473	+ 0.2
Leather tanning	9	112,601	101,197	+11.3	.533	.532	+ 0.2
Shoes	11	95,916	98,091	— 2.2	.345	.368	— 6.3
Leather products, other	4	9,851	9,709	+ 1.5	.521	.519	+ 0.4
Rubber tires and goods	4	49,432	45,182	+ 9.4	.579	.562	+ 3.0
Paper and Printing:	38	257,218	256,923	+ 0.1	.602	.612	— 1.6
Paper and wood pulp	3	142,938	146,319	— 2.3	.537	.540	— 0.6
Paper boxes and bags	3	7,888	8,783	—10.2	.373	.342	+ 9.1
Printing and publishing	27	106,392	101,821	+ 4.5	.707	.740	— 4.5

*Not included in total for all Industries.

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

City Areas	No. of Plants Reporting	Number of wage earners week ended			Total weekly wages week ended			Average weekly earnings week ended		
		March 15 1928	Feb. 15 1928	Per cent change	March 15 1928	Feb. 15 1928	Per cent change	March 15 1928	Feb. 15 1928	Per cent change
Allentown-Bethlehem-Easton	77	20,736	20,691	+ 0.2	$538,535	$525,427	+ 2.5	$25.97	$25.39	+ 2.3
Altoona	14	2,187	2,129	+ 2.7	49,665	49,682	— 0.0	22.71	23.34	— 2.7
Erie	11	3,821	3,792	+ 0.8	115,843	115,407	+ 0.4	30.32	30.43	— 0.4
Harrisburg	35	6,701	6,857	— 2.3	145,027	150,376	— 3.6	21.64	21.93	— 1.3
Hazleton-Pottsville	20	4,741	4,765	— 0.5	102,152	103,738	— 1.5	21.55	21.77	— 1.0
Johnstown	13	969	977	— 0.8	28,282	28,418	— 0.5	29.19	29.09	+ 0.3
Lancaster	30	4,873	4,784	+ 1.9	102,940	100,073	+ 2.9	21.12	20.92	+ 1.0
New Castle	10	5,863	5,954	— 1.5	168,969	168,920	+ 0.0	28.82	28.37	+ 1.6
Philadelphia	243	85,220	87,341	— 2.4	2,312,766	2,394,560	— 3.4	27.14	27.42	— 1.0
Pittsburgh	94	62,167	61,263	+ 1.5	1,815,878	1,808,199	+ 0.4	29.21	29.52	— 1.1
Reading-Lebanon	62	20,353	20,588	— 1.1	499,546	518,470	— 3.6	24.54	25.18	— 2.3
Scranton	31	5,171	5,031	+ 2.8	102,855	100,032	+ 2.8	19.89	19.88	+ 0.1
Sunbury	26	11,490	11,289	+ 1.8	252,289	244,827	+ 3.0	21.96	21.69	+ 1.2
Wilkes-Barre	21	5,880	5,862	+ 0.3	110,585	110,424	+ 5.6	19.83	18.84	+ 5.3
Williamsport	21	3,329	3,402	— 2.1	75,849	78,907	— 3.9	22.78	23.19	— 1.8
York	43	5,837	5,340	+ 9.3	115,564	109,266	+ 5.8	19.80	20.46	— 3.2

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

ACCIDENT REPORTS RECEIVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	163	135	11,840	12,138
February	146	113	11,799	12,058
March	150	139	12,400	12,689
April				
May				
June				
Total—1928	459	387	36,039	36,885
1927				
January	170	144	14,353	14,667
February	184	154	12,947	13,285
March	163	150	14,182	14,495
April	169	145	12,548	12,862
May	173	139	12,730	13,042
June	186	124	13,317	13,627
Total—1927	2,064	1,665	157,025	160,754
*Grand Total	29,325	11,651	2,173,731	2,214,707

*Since the inception of the Act—January 1, 1916.

AGREEMENTS APPROVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	168	280	5,288	5,736
February	136	242	5,677	6,055
March	124	331	5,970	6,425
April				
May				
June				
Total—1928	428	853	16,935	18,216
1927				
January	158	250	4,760	5,168
February	174	363	3,994	4,531
March	174	323	4,945	5,442
April	131	231	6,829	7,191
May	128	262	7,839	8,229
June	186	309	7,531	8,026
Total—1927	2,001	3,479	69,406	74,886
*Grand Total	24,184	24,816	812,293	861,293

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	Awarded: Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded
January	$1,100,855	$ 470,921	$ 237,571	$ 392,363
February	957,996	389,497	220,404	348,095
March	1,196,186	395,997	380,960	419,229
April				
May				
June				
Total—1928	$3,255,037	$1,256,415	$ 838,935	$1,159,687
1927				
January	$ 995,376	$ 528,084	$ 210,370	$ 256,922
February	1,097,268	504,421	374,696	218,151
March	979,090	510,805	251,823	216,462
April	846,197	393,650	204,166	248,381
May	1,087,132	380,418	268,041	438,673
June	1,408,339	482,313	312,575	613,451
Total—1927	$13,329,557	$ 5,772,868	$ 3,226,464	$ 4,330,225
*Grand Total	$138,240,121	$66,683,065	$28,720,268	$42,836,788

1928	Paid: Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
January	$ 927,633	$ 297,118	$ 238,152	$ 392,363
February	785,422	215,075	222,252	348,095
March	1,044,219	266,751	358,239	419,229
April				
May				
June				
Total—1928	$2,757,274	$ 778,944	$ 818,643	$1,159,687
1927				
January	$ 867,141	$ 331,075	$ 279,144	$ 256,922
February	746,916	279,197	249,568	218,151
March	851,925	359,705	275,758	216,462
April	785,120	290,396	246,343	248,381
May	916,262	211,002	266,587	438,673
June	1,517,144	331,392	572,301	613,451
Total—1927	$11,697,889	$ 3,492,763	$ 3,860,969	$ 4,330,225
*Grand Total	$96,294,850	$29,491,225	$23,966,837	$42,836,788

*Since the inception of the Act, January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	12	$ 26,774	5	$ 13,287	15	$30,734	14	$24,898	47	$69,998
February	9	23,580	7	17,577	13	27,637	11	20,210	29	47,755
March	8	20,594	11	29,159	20	43,017	20	38,297	69	107,771
April										
May										
June										
Total—1928	29	$ 70,948	23	$ 60,023	48	$101,388	45	$83,405	145	$2.5,524
1927										
January	10	$25,714	8	$20,640	13	$26,759	8	$14,708	34	$49,923
February	19	46,639	9	23,220	28	54,922	18	31,609	77	116,274
March	11	28,164	8	19,545	15	28,105	10	16,724	46	69,564
April	4	10,240	4	10,143	15	30,905	10	16,763	32	46,858
May	9	23,060	7	17,291	15	29,728	10	18,624	50	77,005
June	8	19,647	3	7,714	19	38,246	22	39,747	47	72,249
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand total	1,278	$2,816,525	917	$2,038,949	2,805	$5,266,587	1,762	$2,910,952	7,193	$9,989,935

**PERMANENT INJURIES.—(Continued)

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	118	$37,612	93	$16,432	20	$4,248	3	$13,588
February	93	33,824	99	21,192	15	5,629	5	23,000
March	99	38,145	118	25,709	10	4,461	18	73,807
April								
May								
June								
Total—1928	310	$109,581	310	$63,333	45	$14,338	26	$110,395
1927								
January	100	$34,173	99	$19,164	12	$7,227	3	$12,062
February	154	54,073	97	18,274	7	2,451	6	27,234
March	148	45,9 5	130	23,366	7	1,671	4	18,729
April	113	38,669	88	14,417	6	3,816	7	31,355
May	95	31,829	95	18,582	7	3,296	10	48,536
June	143	44,786	99	19,408	6	3,588	19	67,190
Total—1927	1,502	$509,006	1,202	$226,122	120	$51,089	89	$370,067
*Grand total	7,073	$2,418,616	5,976	$1,123,775	409	$233,166	463	$1,921,763

*Since the inception of the act—January 1, 1916.

**Multiple losses separated respectively.

NOTE: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING MARCH, 1928.

Cause	Total of all industries		Construction and Contracting						Coal Mining				Quarrying and mininmg other than coal mining		Manufacturing																	
			Building construction		Other construction		Contracting		Anthracite		Bituminous				Total of manufacturing industries		Chemicals and allied products		Clay, glass and stone products		Clothing		Food and kindred products		Leather, rubber, and composition goods		Lumber, wood and their products		Paper and paper products and printing and publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	150	12,539	8	589	3	195	4	350	38	2,048	30	2,241	4	166	24	4,434	1	200	--	365	1	188	3	377	1	141	--	330	--	222	1	264
Working machinery and processes	6	1,042	--	22	--	8	--	18	1	30	1	113		7	3	745	--	48	--	23	--	73	--	33	--	40	--	71	--	68	1	78
Boilers and pressure apparatus	---	33	--	-----	--	1	--	5	--	7	--	-----	--	1	--	11	--	1	--	-----	--	-----	--	1	--	-----	--	-----	--	-----	--	-----
Pumps and prime movers	2	34	--	1	--	-----	--	3	--	4	--	5	--	1	2	14	--	4	--	6	--	-----	--	-----	--	-----	--	1	--	-----	--	1
Transmission apparatus	---	16	--	1	--	-----	--	2	--	2	--	1	--	-----	--	10	--	1	--	3	--	2	--	-----	--	-----	--	-----	--	-----	--	-----
Elevators and hoists	2	65	--	7	--	-----	--	-----	--	11	1	11	--	2	1	17	--	1	--	3	1	-----	--	2	--	1	--	-----	--	1	--	4
Cranes and derricks	3	161	--	10	--	3	--	18	--	6	--	4	--	6	3	105	1	5	--	6	--	1	--	3	--	1	--	1	--	2	--	2
Cars and engines	20	1,073	--	1	--	2	--	7	5	272	8	514	--	18	1	68	--	1	--	16	--	2	--	1	--	1	--	-----	--	3	--	-----
Motor vehicles	7	482	--	15	1	8	—	24	--	1	--	2	--	5	1	139	--	9	--	4	--	2	--	23	--	-----	--	7	--	1	--	2
Other vehicles	2	77	--	4	--	1	--	3	--	1	--	2	1	-----	1	28	--	3	--	1	--	-----	1	13	--	-----	--	8	--	-----	--	-----
Hand trucks	---	185	--	6	--	3	--	6	--	1	--	-----	--	2	--	123	--	1	--	25	--	1	--	13	--	8	--	4	--	9	--	9
Water and air craft	1	8	--	-----	--	1	1	3	--	-----	--	2	--	-----	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Handling objects—by hand	7	2,701	--	147	--	40	2	76	2	388	--	301	--	37	2	1,192	--	58	--	115	--	27	--	107	--	23	--	105	--	49	--	55
Hand tools	3	1,194	--	67	--	35	--	22	--	214	--	250	--	23	2	383	--	22	--	20	--	26	--	28	--	13	--	38	--	15	--	7
Electricity	4	81	--	1	--	1	--	-----	--	14	2	30	--	-----	1	21	--	-----	--	1	--	1	--	1	--	1	--	-----	--	1	--	-----
Explosive substances	26	182	--	2	--	3	--	9	10	74	11	26	1	7	2	34	--	6	--	2	--	-----	--	2	1	3	--	-----	--	1	--	1
Hot and corrosive substances	2	398	--	27	--	4	--	4	--	16	--	16	--	2	--	246	--	6	--	23	--	3	--	21	--	7	--	5	--	8	--	15
Falling objects	40	1,872	1	60	--	24	1	54	20	565	14	658	1	30	1	344	--	12	--	35	--	2	--	16	--	9	--	29	--	18	--	12
Falls of persons	14	1,866	7	136	2	46	--	67	--	247	--	150	1	20	1	615	--	46	--	42	--	24	--	78	--	27	--	42	--	38	--	44
Stepping upon or striking against objects	1	641	--	68	--	10	--	22	--	119	--	64		2	1	223	--	12	--	29	--	19	--	16	--	6	--	10	--	6	--	24
Miscellaneous	10	428	--	14	--	5	--	7	--	67	2	92	--	3	2	115	--	4	--	11	--	5	2	19	--	1	--	9	--	2	--	10

*F=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING MARCH, 1928—Concluded.

Cause	Manufacturing—Concluded																Transportation and Public Utilities						Other Industries									
	Metals and Metal Products														Other		Steam railroads		Other transportation		Public utilities		Hotels and restaurants		Trading				State and municipal		Miscellaneous	
	Total		Blast furnaces and steel works		Rolling mills		Foundries and machine shops		Fabrication		Car repair shops		Automobile service stations												Retail		Wholesale					
*	F	NF	F	NF	F	NF	F	NF	F	NF	F	N	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF
Total of all causes	16	2,281	1	68	2	454	1	472	9	850	2	242	1	195	1	66	7	478	1	196	2	195	..	125	6	584	1	151	8	286	5	501
Working machinery and processes	2	332		1	1	58		71	1	169		21		12		19	1	1		2		5		7		34		4		3		34
Boilers and pressure apparatus		9		2						5		2						1						1						3		3
Pumps and prime movers	2	2							2	2								1				4										1
Transmission apparatus		4						2		2																						
Elevators and hoists		5		1		1		1		1				1										2		4		5				6
Cranes and derricks	2	84		6		31		23	2	21		3						2		2		1				2				1		1
Cars and engines	1	43	1	1		8		2		7		25				1	6	171		15						3		1				1
Motor vehicles	1	87				5		3		20		3	1	56		4		4		62		18			1	66		25	3	55	1	58
Other vehicles		2						1						1		1				2		8				7		3		12		6
Hand trucks		52		3		13		8		24		4				1		14		1		4				13		5				7
Water and air craft		1				1														1												
Handling objects—by hand	2	630		16		142		144	1	234	1	53		42		23		85		33	1	36		23		135		44		40		124
Hand tools	2	212		4		33	1	30	1	77		34		34		2		33		8		15		13		52		10	1	26		43
Electricity	1	16		1		1		1	1	9		4								1	1	9		3						1		
Explosive substances	1	19				5			1	6				8								6		3	1	7		1		7	1	3
Hot and corrosive substances		157		9		28		68		35		10		7		1		8	1	3		6		21		15			1	7		23
Falling objects	1	210		5	1	47		46		87		19		6		1		22		7		13		3	1	34	1	10		20		28
Falls of persons		263		12		56		36		93		52		14	1	11		96		40		52		35	3	139		29		79		115
Stepping upon or striking against objects	1	107		9		19		25		36	1	10		8				25		3		8		11		45		9		12		20
Miscellaneous		52		4		6		11		22		3		6		2		15		16		10		3		28		5	3	20	3	28

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15.539	150	12,815	12,965	170	14,497	14.667	163	11,975	12,138
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,161	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*309*	*23,887*	*24,196*
March	212	15,989	16,201	158	15.517	15.675	185	15.606	15,791	163	14,332	14.495	150	12,539	12,689
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*	*459*	*36,426*	*36,885*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862			
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*			
May	157	13,940	14,097	170	14.523	14.693	171	14,521	14,692	173	12,869	13,042			
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*			
June	175	14,324	14,499	194	15,656	15.850	163	15,233	15,396	186	13,441	13.627			
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*			
July	185	14,917	15,102	178	16,440	16,618	190	15,580	15,776	176	12.548	12,724			
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99.968*	*101,120*	*1,221*	*93,481*	*94,702*			
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*			
September	167	14,230	14,397	141	14,428	14.569	231	15.866	16,097	163	13.279	13,442			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1.556*	*120,420*	*121.976*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*			
December	187	14,018	14,205	141	12,612	12,753	203	14.699	14,902	152	11,619	11,771			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: ..... Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building.
Bureau of Bedding and Upholstery,
400 North Third Street.
Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building.
State Workmen's Insurance Fund,
Fourth and Blackberry Streets.

BRANCH OFFICES

Allentown: ..... Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: ..... Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building

Dubois: ..... Bureau of Rehabilitation,
Workmen's Compensation Referee,
Deposit National Bank Building.

Erie: ..... State Employment Office,
1026 French Street.

Franklin: ..... State Workmen's Insurance Fund,
413 Franklin Trust Building.

Greensburg: ..... State Workmen's Insurance Fund,
306 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: ..... State Employment Office,
Second and Chestnut Streets.

Hazleton: ..... Bureau of Inspection,
1713 Hazleton National Bank Building.

Johnstown: ..... Bureau of Inspection,
427 Swank Building.
State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: ..... Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: ..... Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

Lock Haven: ..... State Workmen's Insurance Fund,
214 Vesper Street.

McKeesport: ..... Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: ..... Bureau of Inspection,
Masonic Building.

New Castle: ..... Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: ..... Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: ..... State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: ..... Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: ..... Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: ..... State Employment Office,
108 North Fifth Street.

Scranton: ..... State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
418 Union National Bank Building.

Sunbury: ..... State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: ..... State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: ..... Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: ..... Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: ..... Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note: State Employment Offices are conducted in cooperation with the United States Employment Service.

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CHARLES A. WATERS, *Secretary.*

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Contents

MAINTAINING SAFE PHYSICAL CONDITIONS IN AND ABOUT THE PLANT*

By A. P. Huckestein

Supervising Inspector

Department of Labor and Industry

Pittsburgh, Pennsylvania

Maintaining safe conditions in and about the plant appears to be the very heart and soul of effective safety work. The mere installation of safety equipment, or ordinary equipment improved for safety purposes, generally carries with it a demand for regular attention at stated intervals to complete the purpose for which any such installation was made. This is particularly true when the subject of lighting is approached.

Proper Lighting

Numerous accidents which come to our attention can be traced directly to the lack of proper lighting. A recent analysis of 10,000 specific accidents indicated about 15 per cent were due to faulty lighting. The causes were divided about equally between insufficient lighting and glare. Considerable thought is spent in designing lighting systems which would give an adequate illumination intensity without glare, but our inspectors find these excellent lighting arrangements do not accomplish their purpose for the reason that bulbs and shades are permitted to accumulate too much dirt and dust and they are not cleaned at stated intervals. The same thing applies to windows. Many factory buildings are designed with a large number of windows to obtain as much natural light as possible, and they too are neglected from the cleaning standpoint so that in a short while they become almost worthless as a source of light. The Pennsylvania Lighting Regulations do not specify any particular time for cleaning either windows or artificial lighting arrangements. This would not be practical because certain types of industry generate much more dust than others and the amount of light required for different operations varies to a considerable extent. The regulations do require a certain amount of illumination but this cannot be maintained unless the lighting arrangements are cleaned regularly.

Exhaust and Ventilating Systems

Exhaust and ventilating systems is another item which we find badly neglected after the installation is made. As a rule, equipment

*Address delivered before Pittsburgh's Fifth Annual Safety Engineering Conference, April 19, 1928.

of this nature is designed on a scientific basis and after the installation is completed, some plants place additional outlets on the system, allow corrosion to set in and other openings to appear in the piping system, while others permit the pipes to become clogged with the result that the system generally is allowed to deteriorate for want of proper care and attention. Both dust collecting and ventilating systems have a definite purpose. They are installed to arrest dust or carry fumes to the outside air both for the protection of employes and to avoid interference with natural flow of illumination. It is too much to expect them to function correctly unless given regular attention.

Wash and Toilet Rooms

Wash and toilet rooms is another subject where too much importance cannot be placed upon maintenance. These are not intended for the primary purpose of accident prevention but rather as a health protection measure and yet indirectly they do have a bearing on accident prevention. When an employe has a desire to keep his person clean, the same desire will have a tendency to make him feel that his place at work should also be kept clean and orderly. It is the workman of this type who proves of most value in the usual general housekeeping of any plant or workshop, and housekeeping is the very first step in connection with accident-prevention work. I have yet to find a well equipped and properly maintained toilet and washroom that was not largely used and appreciated by the workmen.

Cranes and Crane Runways

Maintaining cranes and crane runways in safe operating condition is another important point with our larger industries. We have found crane runways that sink as much as 5½ inches at one point, causing a dip in one side of the crane runway and presenting a difficult job for the operator to handle a crane at this particular point. We have found walkways installed on cranes which were allowed to deteriorate to a point where our inspectors would hesitate to use them, all for want of a little care and attention. The use of chains should also come in for discussion. The Crane Regulations for the State of Pennsylvania require that chains shall be inspected once each year, and if at any time three feet of chain length is found to have stretched one-third the length of the link, it shall be discarded. The regulations also require that a report must be kept on file in the office of the employer indicating the time such chain inspections were made and the results obtained. Splicing between broken chains by inserting a bolt and nut between two links is prohibited for the reason that in such cases the nut and bolt usually sustains the entire

load. When chains are annealed, it is required that this annealing be done in properly equipped furnaces and under the supervision of competent persons who have experience in heat treating. I find, however, that many safety engineers take the position that when a chain is ready for annealing, it is ready for the scrap heap and should be discarded. These same regulations require that cables should be inspected with reports filed the same as for chains and when the number of broken wires has reduced the factor of safety of any cable by 15 per cent, the cable shall be immediately discarded. These regulations also require that cranes shall be handled only by regular operators or authorized substitutes who have had at least two weeks' experience or training under competent supervision and that no one but an authorized person shall enter a crane cage. To become an authorized crane operator in this state, it is necessary that a person speak and read the English language, be over 18 years of age, have good hearing and eyesight, and be free from heart disease or similar ailments, or in other words, pass a physical examination.

Ladders

An item which frequently brings trouble for an inspector is that of unsafe ladders. Ladders become unsafe either from too frequent use, rough handling, or perhaps from poor construction in the beginning. Scarcely a day goes by but one of our inspectors condemns several ladders which he finds to be unsafe. You are all acquainted with the high toll of accidents of persons falling; and defective or poorly constructed ladders takes its share of that toll.

Stairways

From ladders we come to stairways, which have been badly worn and sometimes poorly constructed in the beginning. All too frequently we are required to suggest to the plant management that stair treads should be renewed and when such a renewal is made, some anti-slip surface should be used. The combination of badly worn stair treads and high-heeled shoes worn by many women enters all too frequently in the reports of our accident investigations. The broken down handrail is also found on more stairs than the average person would guess. This same handrail is frequently broken down on platforms as well as on stairways.

Platforms

Not so long ago, it was my pleasure to escort the Secretary of Labor and Industry thru one of the large plants, and in my desire to have him see a particularly interesting operation with which he was not familiar. I brought him to a point where this could be best seen,

this necessitated standing on a platform at a high elevation where the handrail was entirely broken down. The safety engineer was not aware that the handrail was broken and I know that it has since been repaired. It was not the best kind of a situation for the boss to run into.

First-aid Cabinets

The first-aid cabinet is one of the small items of installation. In smaller plants, these cabinets are installed and all too frequently forgotten. Our inspection in many instances finds the cabinets either empty or nearly so. Every safety engineer realizes the importance of the contents of a first-aid cabinet and those of us who are on the job are always sure that a full quota of supplies can be found at all times in the first-aid cabinet.

Warning Signs

Warning signs are purchased and considerable thought given to the kind and type to be bought and where they shall be placed. Not sufficient attention is given to see that they are properly maintained. We also find all too frequently that material which has been properly piled or stored either in the store or supply room or yard is pulled apart in a careless way to get something out from near the bottom, and because supervision is lax, these piles of material are not properly straightened.

Floors

Keeping floors in a safe condition so that they will be free from both tripping and slipping hazard seems to be overlooked in many of our establishments. Most of us are familiar with the high toll of fatalities and injuries due to falls of persons. I do not believe, however, that the majority of us understand that nearly one-half of all falls occur on the level and are due to unsafe walkways or floors. This is not always caused by natural wear and tear on the floor, but more often as a result of slipping due to an accumulation of dirt, grease, oil and such substances as present a slipping hazard. The best of floors, if permitted to accumulate these substances, will still be hazardous from the slipping standpoint.

Roofs

Another item that has been giving us some concern lately is that of roof conditions, particularly the corrugated iron roof, which needs repair. We have found some instances where such roofs are repaired with a piece of ordianry muslin saturated and covered with tar laid on top of the deterioriated portion of the roof. Deterioration con-

tinues on the under side of the roof and in a short while additional repairs are needed. We have had several cases where workmen walked out on such roofs and fell thru this muslin and tar coating. It is unsafe to walk on any roof of that type without using planking of sufficient size and strength or, better still, have the worn portion of the roof entirely renewed if possible.

Electric Welding

Electric welding, one of our newer operations, is already a source of many accident reports. When welding is done in all parts of the shop, protecting curtains must necessarily be portable, and they will not last as long as the fixed curtains. The portable shades should be subjected to inspection more often than the fixed curtain. We frequently find them badly worn and burned.

Hand Tool

We still have with us the hand tools which should be examined periodically, for broken handles, mushroom heads, etc., and we are not yet free from accidents which occur when a guard has broken down, or been removed for some purpose and not promptly replaced. The number of accidents which occur under these circumstances is astonishing.

Maintenance of Safe Conditions

The best suggestion I can offer for the maintenance of safe conditions in the plant is to draw up something on the order of a safety calendar, which indicates the items that are subject to inspection at stated intervals running all the way from annual and semi-annual to quarterly, monthly, weekly, and continuous. The adoption of such a calendar will naturally bring these various items to the attention of either the management or the safety department, and if properly carried out and the necessary records made and maintained, should have a very beneficial effect in reducing the number of fatalities and accidents in any plant, large or small. For the large plant such a calendar is absolutely necessary and for the small plant, it is by no means a luxury. It is a safety measure from the accident standpoint in that it will be the means of reducing accidents and it is also a safety measure in that the plant itself and its equipment will be subjected to periodical inspection and necessary repairs made before the equipment reaches a stage where repairs are impossible and new purchases must be made.

REHABILITATION AND COLLEGE GRADUATES

By S. S. Riddle

Department of Labor and Industry

Five disabled young persons will be graduated in June from Pennsylvania colleges after successfully completing courses in which they were assisted by the Bureau of Rehabilitation of the Department of Labor and Industry. Two of the five are prepared for the teaching profession, one in academic subjects and the other for commercial work. One young American of foreign ancestry has completed a course in business administration and is planning to engage in importing. One will become an attorney and another a pharmacist.

All are being graduated with good records and one of the five completes his training as president of his class. Four of the five prospective graduates were injured in employment accidents in the mines of Pennsylvania. The disabilities of the five include injured arm and leg, fracture of spine, amputation of right leg, amputation of right hand and amputation of left arm.

Nine years ago, a youth of sixteen lost his right arm at the shoulder through an industrial accident. He registered with the Bureau of Rehabilitation, was returned to public school, successfully graduated, went through college with the assistance of the Bureau, and is today a teacher in a college preparatory academy.

Each year a number of disabled young persons, taking advantage of the opportunities provided by the Bureau of Rehabilitation, prepare themselves for professional work by entering institutions of higher education. Those cases of ambitious training programs are, however, in the minority among the approximately one thousand disabled persons who annually register with the Bureau of Rehabilitation for assistance in returning to suitable employment.

Due to economic responsibilities, lack of basic education and other factors, many must be aided, immediately after convalescence, to return to the most available and suitable jobs. Others are trained, as circumstances govern, for various trades and occupations. Approximately ninety persons are assisted financially each month by the Bureau of Rehabilitation in training for suitable employment.

JACOB LIGHTNER

Jacob Lightner, a member of the official family of the Department of Labor and Industry since its organization in 1913, is retiring voluntarily, under the State Retirement Act, July 1, 1928, after completing twenty-four years and two months in the service of the Commonwealth. Mr. Lightner entered State employment in the Department of Internal Affairs in 1904, and during the Legislative sessions of 1909-11 and 13, on leave of absence from that Department served as clerk to the speaker of the House of Representatives.

Following his transfer to the Department of Labor and Industry, when that Department was organized to succeed the former Department of Factory Inspection, Mr. Lightner was the first supervising inspector and in that capacity organized the work in the eastern part of the state, with headquarters in Philadelphia.

When the Bureau of Employment was created in the Department of Labor and Industry by Act of Assembly, Mr. Lightner was designated as director of that Bureau and established a number of free employment offices in various sections of the Commonwealth. During his supervision of that Bureau cooperative relations were established with the United States Employment Service of the United States Department of Labor. During the war he was active in all sections of the State endeavoring to aid in solving the many employment problems that arose during that period of intense manufacturing production.

Through the Bureau of Employment, every manufacturing establishment in Pennsylvania was circularized in 1917 by questionnaire in the effort to obtain suitable employment for disabled Pennsylvania soldiers and sailors and also to awaken the public generally to the need of providing suitable employment for persons disabled.

At the time of his retirement, Mr. Lightner occupies the position of Chief of the Division of Licensed Agencies of the Bureau of Employment and in that work has, for the last several years, supervised the work of private employment and booking agencies in accordance with Pennsylvania legislation. He enjoys a wide acquaintance throughout the state and has many friends both in and out of state work.

Although attaining the legal retirement age, Mr. Lightner is a comparatively young man. With Mrs. Lightner he expects to do considerable traveling during the coming year and will later make his permanent home in Harrisburg. He originally entered the service of the Commonwealth from North Braddock Borough, Allegheny County.

THEY PUT SAFETY FIRST*

Outstanding Records of Pennsylvania Industry Assembled by the Bureau of Inspection

Shingle Silk Corporation, Mount Carmel—Lost-time accidents in 1927, 2; working days, 290; number of employes, 266

Clark Printing and Manufacturing Company, Lock Haven—Printing and binding—one lost-time accident in 1927; number of working days, 308; number of employes, 30.

Delvan Block Company, South Williamsport—Manufacturers of cinder blocks—one lost-time accident in 1927; number of working days, 275; number of employes 12.

Kramer Wagon Company, Oil City—Only three lost-time accidents in 1927; none up to May 9, 1928 and still going. This plant has not had a fatality or total disability case since safety organization was formed.

Middletown Car Company, Middletown—Year ending February 29, 1928, no lost-time accidents in 7 of 12 months, and a clean slate for the year in 15 of the 18 departments in the plant. Previous year 10 out of 18 departments had clean records.

Continental Rubber Works, Erie—Cost of lost-time accidents during year 1927 decreased 70 per cent from cost in 1926. During the last five months of 1927 this concern had only two lost-time accidents, and the first four months of 1928 promise an even better record. Employs 600 men and women, many departments operating 24 hours a day.

Lock Haven Chair Corporation, Lock Haven—Manufacturers of furniture—Nine lost-time accidents in 1927; number of working days, 295; number of employes, 230. This is a reduction of about 90 per cent in accidents in the first year's operation of a safety organization formed at the solicitation of the Bureau of Inspection of the Department of Labor and Industry.

Westinghouse Electric and Manufacturing Company, Sharon Works—In 1926 this plant had 398 lost-time accidents. With organized effort this was cut down to 38 in 1927. A no-accident drive is now being conducted and the 80th consecutive day has passed without a single lost-time accident; 2500 employes involved and the equivalent of 1,320,000 man-hours worked in the 80 days.

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*This will be a monthly feature in "Labor and Industry." Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication to Director, Bureau of Inspection, Department of Labor and Industry, or to the Divisional Supervisor of the Bureau.

J. K. Rishel Furniture Company, Williamsport—Manufacturers of furniture, 160 employes went through year 1927 without single lost-time accident. This record covers 295 working days.

The Joseph Reed Gas Engine Company, Oil City—This concern has had a safety organization since 1921 and has never had a fatality. In 1923 the plant had 2294 man-hours lost time from accidents; in 1927, it had 48 man-hours lost time.

H. D. Bob & Company, Sunbury,—Maufacturers of shirts—One lost-time accident in 1927; number of working days, 301; number of employes, 250.

Bethlehem Mines Corporation, Steelton—Sixty-five men, 19 months no lost-time accidents.

National Transit Pump and Machine Company, Oil City—In 1919, which was shortly after organization of safety work, this plant had 291 accident cases requiring medical aid, 81 of them figuring as lost-time accidents; last year accidents requiring medical aid totaled 70; lost-time accidents 29.

Galena-Signal Oil Company, Franklin—This plant had only 2 lost-time accidents among 119 employes in 1927; no accidents in 1928 up to May 10th.

DECISION OF THE WORKMEN'S COMPENSATION BOARD

Holmes *v.* State Workmen's Insurance Fund

Compensation for total disability is limited to five hundred calendar weeks from the fourteenth day of disability.

Opinion by Commissioner Fleitz.

The claimant has appealed from an order of the Referee granting a petition for termination, and the exceptions before us raise a question of law only. Claimant sustained an accidental injury while in the course of his employment with defendant on February 12, 1918. On May 13, 1918, an agreement was entered into between the parties, providing for payment of compensation at the rate of $10.00 per week. Under this agreement payments were made from February 26, 1918, to May 30, 1918, a period of thirteen weeks and three days, whereupon claimant signed a final receipt. Later a petition for review was filed by claimant, the final receipt set aside, and the agreement

for total disability was reinstated as of December 29, 1923, and compensation paid thereunder to and including September 8, 1927, a period of two hundred and nine weeks. On December 8, 1927, petition for termination was filed by the defendant in which it was contended that having paid claimant for all the time he was disabled during the five hundred weeks period following the first fourteen days of disability, there was no further liability. The claimant's contention is, although the five hundred weeks have elapsed since the fourteenth day of disability, he is still entitled to be paid until he receives five hundred weeks of compensation. The total disability of the claimant at the time of hearing was admitted. The Referee found after hearing that compensation had been paid for total disability by defendant during the five hundred calendar weeks following the fourteenth day of total disability, and terminated the agreement. Claimant has appealed. In our opinion the Referee has made a correct disposition of the case. The Act of 1915, page 736, which controls, is as follows:

> "The following schedule of compensation is hereby established for injuries resulting in total disability. (a) For the first five hundred weeks after the 14th day of total disability * * *" (the amount to be paid per week)

The Legislative intent therefore seems to have been that the employer should not be liable for compensation after five hundred weeks from the end of the waiting period had elapsed. This conclusion seems to have been sustained in the case of Gairt *v.* Curry Coal Mining Co., 272 Pa., 494, wherein it was held that the Board had jurisdiction over an agreement for the purpose of review at any time during the life of the agreement or during the period of time it had to run. The Referee has filed a very clear and comprehensive report, and we fully agree with his conclusions and order terminating the agreement. These are affirmed, and the appeal is dismissed.

INDUSTRIAL BOARD

The regular monthly meeting of the Industrial Board was held on Wednesday, May 16, 1928.

The following new regulations were finally approved for promulgation by the Department:

1. Guarding of Centrifugal Machines.

> "Centrifugal machines (extractors, whizzers) shall be provided with covers for the revolving drums or baskets. These covers shall be electrically or mechanically arranged so that they must be closed at all times while the drums are in motion. Machines shall be provided with effective brakes which are mechanically operated."

2. Amendments were made to the existing Regulations on Pits and Quarries in order to effect agreement with the later Regulations approved for the Use, Handling, and Storage of Explosives. These amendments do not change any requirements in the Code but simply make the two Codes uniform.

Revised regulations were presented to the Board for tentative approval which will cover (1) trenches and excavations, and (2) mechanical power transmission apparatus. Public hearings will be arranged so that those affected will have opportunity to express their opinions before the new regulations are finally adopted.

Criticism is now being received on the proposed amendment to the Elevator Code applying to the construction and operation of lumber hoists, orchestra lifts, organ console lifts, and similar apparatus. Early action on these new regulations is expected.

Public hearings have been completed on the Regulations for Spray Coating. The suggestions received at these hearings and through correspondence will be carefully considered by the Department, and it is expected that the Regulations can be put into effect by September first next.

BUILDING PERMITS IN THE PRINCIPAL CITIES AND BOROUGHS OF PENNSYLVANIA IN 1927

By William J. Maguire

Director, Bureau of Statistics

The Department of Labor and Industry herewith presents its second annual report of building in the larger cities and boroughs of Pennsylvania. The report is for the calendar year 1927. A similar report for the year 1926 is published in Labor and Industry for July, 1927, Vol. XIV, No. 7 pp 10-19.

Because of the very splendid cooperation of the building inspection officers in the various cities and boroughs in reporting building permit data, the Department is able to publish for 1927 complete detailed building statistics for 28 cities and 11 boroughs. This is 4 cities and 3 boroughs more than the number included in the 1926 report.

The report for 1927 shows that permits were issued in 28 cities and 11 boroughs for the construction, alteration, or repair of 44,377 buildings at an estimated cost of $217,150,258. This amount covers only the cost of construction work, and does not include the cost of the land upon which the buildings were to be erected. This construction cost was apportioned as follows:

Kind	Number of buildings	Estimated cost	Per cent
New residential buildings	15,380	$97,443,991	44.9
New non-residential buildings	11,367	86,718,857	39.9
Alterations and repairs	17,630	32,987,410	15.2
Total	44,377	$217,150,258	100.0

In 1926, according to reports submitted by 24 cities and 9 boroughs, new residential building construction comprised 42.4 per cent of the building total, new non-residential buildings 46.2 per cent, and alterations and repairs 11.4 per cent.

TABLE I. NUMBER AND COST OF NEW BUILDINGS AS SHOWN BY REPORTS OF BUILDING PERMITS GRANTED IN 39 CITIES AND BOROUGHS DURING THE CALENDAR YEAR 1927, BY CLASS OF BUILDING

Class of Building	No. of buildings	Per cent of total	Estimated Cost		
			Amount	Per cent of total	Average per building
RESIDENTIAL BUILDINGS:					
1-family dwellings	14,466	53.9	$69,153,392	37.6	$4,800
2-family dwellings	581	2.2	5,634,806	3.1	9,698
1-family and 2-family dwellings with stores combined	154	0.5	1,217,200	0.7	7,904
Multi-family dwellings	168	0.6	16,490,993	8.9	98,161
Multi-family dwellings with stores combined	44	0.2	1,161,700	0.6	26,402
Hotels	5	--------[1]	2,390,000	1.3	478,000
Lodging houses	1	--------[1]	21,000	--------[1]	21,000
Others	21	0.1	1,374,900	0.7	65,471
Total	15,880	57.5	$97,443,991	52.9	6,336
NON-RESIDENTIAL BUILDINGS:					
Amusement and recreation places	39	0.1	$6,092,600	3.3	$156,221
Churches	65	0.2	4,397,370	2.4	67,651
Factories, shop, etc.	384	1.4	11,292,851	6.1	29,403
Garages—public	192	0.7	1,329,680	0.7	6,925
Garages—private	9,122	34.1	8,905,639[2]	4.8	976
Gasoline and service stations	116	0.5	671,252	0.4	5,787
Institutions	31	0.1	9,561,285	5.2	308,429
Office buildings	95	0.4	11,067,735	6.0	116,502
Public buildings	21	0.1	1,548,385	0.9	73,733
Public works and utilities	28	0.1	1,615,480	0.9	57,696
Schools	55	0.2	15,100,671	8.2	274,553
Sheds	372	1.4	816,598	0.4	2,195
Stables and barns	119	0.5	203,900	0.1	1,713
Stores, warehouses, etc.	531	2.0	11,032,597	6.0	20,777
All others	197	0.7	3,081,813	1.7	15,644
Total	11,367	42.5	$86,718,857	47.1	$7,629
GRAND TOTAL	26,747	100.0	$184,162,848	100.0	$6,885

[1] Less than one-tenth of one per cent.
[2] Item also includes public garages for Philadelphia.

Table 1 shows in detail the number, kind, and cost of new buildings erected during 1927. Of the $184,162,848 spent for new construction during the year, $97,443,991, or 52.9 per cent, was spent for residential buildings. Homes were thus provided for more than 19,000 families in addition to the living accommodations provided in hotels, lodging houses, and clubs. This residential building cost includes expenditures for all classes of residential buildings, including one-family and two-family dwellings, apartments, hotels, and lodging houses. Of all money spent for residential buildings in 1927, 71 per cent was spent for one-family dwellings, 6 per cent for two-family dwellings, 19 per cent for apartment houses, and 4 per cent for hotels and lodging houses.

One-family dwellings continue to be the most favored type of abode for Pennsylvanians. Of the 19,237 families provided with dwelling

accommodations in Pennsylvania during 1927, 14,406 families, or 75 per cent, were housed in one-family dwellings. Sixty per cent of these one-family dwellings were built in the city of Philadelphia.

This situation is unique in Pennsylvania. A federal report covering building permits issued in 302 cities in the United States during 1927, shows that of 406,095 families provided for in these 302 cities, including several Pennsylvania cities, only 38.3 per cent were housed in one-family dwellings. The inherent home-owning instinct is a marked characteristic of Pennsylvania's citizens.

The cost of one-family dwelling construction shows little change compared with last year. There were 14,406 one-family dwellings built in these 39 cities and boroughs during 1927 at an average cost of $4,800. This is only 2.4 per cent lower than the average dwelling cost reported in 1926.

The five hotels built in 1927 were much larger in average size than those built in 1926, nearly 65 per cent larger. The average cost of the hotels built in 1927 was $478,000. Three of the hotels were built in Pittsburgh, one in Erie, and one in Pottsville.

Non-residential building construction comprised 47.1 per cent of the new building total in 1927. The cost of school building construction was the largest item in the non-residential buildings group. The total estimated expenditures for the erection of 55 new school buildings was $15,100,671, or 17.4 per cent of the cost of all non-residential buildings. Twenty-two of the school buildings were built in Philadelphia. The average cost of the schools built in Philadelphia was $423,401 compared with an average of $175,329 for those built in cities and boroughs outside of Philadelphia. The school-building program has pushed ahead vigorously in Pennsylvania during the last few years. The capital outlay of Pennsylvania school districts for new buildings in 1927 was approximately 17 per cent higher than in 1926.

Buildings for industrial and commercial purposes also comprised a large share of the non-residential building total. Three hundred eighty-four factories and shops were built at a cost totaling $11,292,851. The volume of construction for mercantile buildings was greater than in 1926. Most of the permits for stores were for buildings of medium size. The construction of office buildings fell off sharply compared with 1926. The total expended for office building construction in 1927 was less than half of the 1926 total. The average expenditure per building also was considerably less.

Private garage construction formed a surprisingly large share of the non-residential building total, more than 10 per cent. There were 9-122 private garages built at a total cost of $8,906,639, or an average cost of $976. However, this is not a true average cost. Expenditures for private and public garages are not classified separately in the

report for Philadelphia, and because the cost of public garages in Philadelphia is included in the item for private garages, the resulting general cost for private garages as shown in the table is somewhat above the actual average.

The policy of going ahead with public building work during times of slack employment seems to have been adopted in 1927. The volume of public work such as the building of hospitals, sanatoria, institutional homes, municipal buildings and memorials, and other public works and utilities shows a large increase.

Table 2 gives detailed building data for each of the 28 cities and 11 boroughs included in this report. The table is in four parts. Part 1 shows the number and cost of the various classes or residential buildings built during the year. The total number of families provided with new living accommodations in each city also is shown. Philadelphia, of course, because of its size, leads the list of cities and boroughs in permits for new residential buildings. The residential building total is greater than the total for all other cities and boroughs combined. Pittsburgh is second highest in expenditures for residences, Allentown is third, Erie is fourth, and Harrisburg is fifth. Other cities where more than a million dollars were spent on residential buildings in 1927 include Lancaster, Pottsville, Altoona, Bethlehem, Scranton, Wilkes-Barre, and Wilkinsburg. The borough of Bristol with only $30,000 showed the smallest total for new residential buildings in 1927.

Part 2 shows the number, kind, and cost of the new non-residential buildings built in each city and borough. Philadelphia, with a total of $47,744,250, also leads in expenditures for new non-residential buildings. Pittsburgh, with $12, 373,886, was second; Scranton, with $3,851,380, was third; Wilkes-Barre, with $3,059,200, was fourth, and Allentown, with $2,355,275 was fifth. In addition to these five cities, the only others to report non-residential building construction amounting to more than $1,000,000, were Altoona, Erie, New Castle, Uniontown, and Williamsport.

Part 3 shows the number of permits granted for additions, alterations and repairs to old buildings. A total of 17,630 permits were issued for work costing $32,987,410, or an average of $1,871 each. This average cost of alteration or repair work is 25 per cent higher than the average reported in 1926. Permits for additions, alterations, and repairs based on the cost of the work done were allocated as follows: on housekeeping dwellings 64 per cent, on non-housekeeping dwellings 12 per cent, and on non-residential buildings 24 per cent.

Part 4 is a summary table showing the grand total of all permits granted for all classes of construction work in each city and borough.

The year 1927 was a very good building year, although the total volume of construction in Pennsylvania was between 10 and 15 per

cent less than in 1926. The building permit records for the first few months in 1928 indicate a good volume of building for the year. There undoubtedly will be some recession in private building work, but it is expected that the volume of public work will more than make up for the decrease in private building enterprise. The volume of building in 1928 should very nearly match that of 1927.

The Department of Labor and Industry wishes to express its appreciation of the uniform courtesy extended to it by local building inspection officials throughout the State, and to thank them for their work in submitting the monthly reports of building permits granted in their respective cities and boroughs during the year 1927. A continuance of this good work in 1928 is confidently expected. It is urged that any city or borough in Pennsylvania that can furnish building statistics such as are contained in this report write to the Department at once expressing its desire to be included in the monthly and annual building permit reports published by the Department. The reporting of building permit statistics to the Deportment is purely a voluntary affair. However, the building statistics should be made as complete and useful as possible, and our goal is to include in a report every city and borough in Pennsylvania having a population of 10,000 or more.

TABLE NO. 2.—NUMBER AND PROPOSED COST OF BUILDINGS (NEW CONSTRUCTION, ADDITIONS TO OLD BUILDINGS, ALTERATIONS, AND REPAIRS) COVERED BY PERMITS ISSUED IN CERTAIN PENNSYLVANIA CITIES AND BOROUGHS DURING THE YEAR 1927, BY INTENDED USE OF BUILDINGS

PART 1.—NEW RESIDENTIAL BUILDINGS

City or Borough	Housekeeping dwellings															Total families Provided for
	One-family dwellings			Two-family dwellings			One-family and two-family dwellings with stores combined			Multi-family dwellings			Multi-family dwellings with stores combined			
	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	
Allentown	510	$2,653,200	510				10	$92,500	14	7	$386,000	82	12	$426,000	75	681
Altoona	261	1,275,035	261				1	7,500	3	1	32,000	8	2	28,500	15	287
Ambridge*	81	513,600	81	2	23,000	4	4	63,500	8	5	73,000	20	5	89,400	16	129
Berwick*	10	27,585	10	4	23,800	8	2	5,500	3	1	30,000	3				24
Bethlehem	72	514,750	72	53	603,700	106				5	71,000	16	5	87,600	26	220
Bradford	68	249,500	68													68
Bristol*	5	18,000	5							1	12,000	4				9
Butler	50	309,500	50													50
Carlisle*	35	164,800	35										1	15,000	4	39
Clairton	49	217,300	49	4	19,300	8	4	32,100	5	2	3,000	7	1	18,000	3	72
Coatesville	28	194,000	28	9	92,000	18										46
Donora*	16	88,750	16	1	6,300	2	2	22,000	4							22
Duquesne	57	386,192	57	9	74,700	18	8	70,000	9				1	22,000	4	88
Erie	331	1,852,700	331	43	234,800	86	16	114,000	23	1	20,400	4				441
Harrisburg	315	1,792,100	315				4	19,000	4							319
Hazleton	43	306,013	43	42	449,016	84				1	15,523	4				131
Jeannette*	27	104,300	27	3	20,000	6							1	43,000	3	36
Johnstown	92	476,400	92	10	92,095	20	12	78,700	12	1	12,000	4				128
Lancaster	241	1,346,600	241				4	13,800	6							247
McKees Rocks*	31	164,285	31				2	27,500	3	2	36,500	12	1	80,000	6	52
Meadville	37	199,850	37	1	7,500	2				1	18,000	6				45
Monessen	22	117,500	22				1	9,000	1							23
Monongahela	23	83,100	23													23
New Castle	152	882,750	152	4	40,000	8	5	51,500	8							168
Norristown*	56	312,900	56	4	26,000	8							1	9,500	3	67

Oil City	35	227,750	35	3	27,500	6										41
Philadelphia	8,891	38,196,210	8,891	217	2,529,275	434				96	12,865,970	2,575				11,900
Pittsburgh	1,909	11,729,951	1,909	75	673,400	150	38	347,500	46	15	2,588,000	361	5	94,000	22	2,488
Pottsville	99	668,500	99				1	62,000	2	7	34,000	21	1	7,000	3	125
Scranton	161	743,900	161	40	278,700	80	14	87,200	28	6	59,000	18				287
Sunbury	12	49,154	12	7	33,000	14	5	19,055	6							32
Tyrone*	10	49,000	10				3	7,000	3							13
Uniontown	94	446,615	94				4	13,945	4							98
Warren*	53	217,615	53	1	7,000	2										55
Washington	47	174,450	47	1	8,000	2	9	26,300	9							58
Wilkes-Barre	149	729,657	149	28	219,020	56	1	10,000	2	5	88,900	20	1	8,200	3	230
Wilkinsburg*	103	682,200	103	7	70,000	14	4	37,600	4	4	70,500	16	2	130,000	20	157
Williamsport	132	615,250	132	13	76,700	26				7	75,200	51	4	75,500	24	233
York	99	372,500	99										1	8,000	3	102
Total 28 Cities, 11 Boroughs	14,406	$69,153,392	14,406	581	$5,634,806	1,102	154	1,217,200	207	168	16,490,993	3,232	44	1,161,700	230	19,237

* Borough.

TABLE NO. 2.—NUMBER AND PROPOSED COST OF BUILDINGS (NEW CONSTRUCTION, ADDITIONS TO OLD BUILDINGS, ALTERATIONS, AND REPAIRS) COVERED BY PERMITS ISSUED IN CERTAIN PENNSYLVANIA CITIES AND BOROUGHS DURING THE YEAR 1927, BY INTENDED USE OF BUILDINGS—(Continued)

PART 1.—NEW RESIDENTIAL BUILDINGS—(Concluded)

CITY OR BOROUGH	Non-Housekeeping Dwellings						Total New Residential Dwellings	
	Hotels		Lodging Houses		Others			
	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Allentown							539	$ 3,557,700
Altoona							265	1,343,035
Ambridge*							97	762,530
Berwick*							17	86,885
Bethlehem							135	1,277,000
Bradford							68	249,500
Bristol*							6	30,000
Butler							50	309,500
Carlisle*							36	179,800
Clairton							60	289,700
Coatesville							37	286,000
Donora*							19	117,050
Duquesne							75	552,822
Erie	1	400,000					392	2,621,900
Harrisburg							319	1,811,100
Hazleton							86	770,552
Jeannette*							31	167,300
Johnstown							115	659,195
Lancaster							254	1,396,500
McKees Rocks*					9	36,100	36	308,285
Meadville							39	2 5 350
Monessen							23	126.5 0
Monongahela							23	83,100
New Castle							161	974,250
Norristown*							61	348,400
Oil City							38	255,250

Philadelphia			1	21,000	8	1,226,000	9,213	54,838,455
Pittsburgh	3	1,390,000			1	60,000	2,046	16,882,851
Pottsville	1	600,000					109	1,371,500
Scranton							221	1,168,800
Sunbury							24	101,209
Tyrone*					1	50,000	14	106,000
Uniontown							98	460,500
Warren*							54	224,615
Washington							57	208,750
Wilkes-Barre							184	1,055,777
Wilkinsburg*							120	1,010,300
Williamsport					2	2,800	158	845,450
York							100	380,500
Total: 28 Cities and 11 Boroughs	5	2,390,000	1	21,000	21	1,374,900	15,380	97,443,991

* Borough.

TABLE NO. 2.—NUMBER AND PROPOSED COST OF BUILDINGS (NEW CONSTRUCTION, ADDITIONS TO OLD BUILDINGS, ALTERATIONS, AND REPAIRS) COVERED BY PERMITS ISSUED IN CERTAIN PENNSYLVANIA CITIES AND BOROUGHS DURING THE YEAR 1927, BY INTENDED USE OF BUILDINGS—(Continued)

PART 2.—NEW NON-RESIDENTIAL BUILDINGS

City or Borough	Amusement and Recreation Places		Churches		Factories, Shops, Etc.		Garages (Public)		Garages (Private)		Gasoline and Service Stations		Institutions		Office Buildings	
	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost
Allentown			3	$146,000	10	$255,900	6	$95,500	655	$351,675	10	$31,700	3	$530,000	2	$1,500
Altoona			3	78,000	6	5,575	2	13,950	333	98,752	5	4,900	2	70,000		
Ambridge*							15	10,950	41	19,840	1	5,500				
Berwick*					6	19,970	5	6,000	37	6,601						
Bethlehem					10	233,500	4	46,800	305	181,941	9	65,600				
Bradford	2	300			12	46,400	11	19,200	96	23,115	1	400			2	21,500
Bristol*	1	50,000	1	13,000	5	10,950	1	1,000	22	7,740					1	16,000
Butler			1	10,000	1	6,000			58	33,610					1	250,000
Carlisle*	1	168,000			6	207,000	3	12,500	107	20,880						
Clairton							1	10,000	67	20,940	2	5,400				
Coatesville			2	80,000	7	10,300	4	75,000	52	63,250	1	3,000				
Donora*							1	300	3	1,900						
Duquesne	1	21,000							84	43,893	1	5,000				
Erie	4	54,400	2	182,570	5	39,250	5	161,000	772	205,326	5	9,150			3	4,500
Harrisburg	2	22,600	2	120,000	4	28,000	1	32,000	271	197,365	8	57,000				
Hazleton			2	148,000	2	9,730	6	56,460	102	139,334	4	14,362	1	230,000		
Jeannette*									27	9,845	1	5,000			1	250,000
Johnstown			2	71,000	15	108,450	3	50,000	158	89,101	9	94,000				
Lancaster			1	5,000	2	5,800	4	31,200	160	121,195	1	5,000				
McKees Rocks*							1	8,000	32	15,202	1	6,500				
Meadville			1	121,000	1	12,000	2	20,000	36	16,510	1	1,200	2	183,000		
Monessen									47	19,335			1	35,000	1	150,000
Monongahela					1	2,500			21	8,845						
New Castle			1	38,000	6	16,200	3	19,500	306	79,580	6	27,500	1	270,000	3	201,100
Norristown*	1	5,500			6	226,600			129	90,602					2	5,150
Oil City	4	592,000	1	23,700	5	20,100	2	46,000	96	45,220	3	3,500			1	1,500
Philadelphia	14	4,929,100	21	2,194,500	151	7,702,075	--(1)	--(1)	1,658	5,071,885	--(1)	--(1)	15	4,570,060	50	6,151,125
Pittsburgh	6	88,000	7	237,000	33	5[illegible]9,100	17	99,850	1,980	1,231,082	24	205,000	2	2 044,000	13	2,310,350
Pottsville					3	122,500	3	14,100	90	57,625	2	38,500			1	8,000

Scranton	------	----------	2	60,000	18	251,950	3	81,200	451	230,787	6	19,800	1	1,496,000	2	91,000
Sunbury	------	----------	1	150,000	3	36,000	------	----------	52	25,300	1	2,000	------	----------	1	26,400
Tyrone*	------	----------	2	103,000	1	6,000	2	10,300	26	20,400	------	----------	------	----------	------	----------
Uniontown	------	----------	4	37,500	1	2,200	1	45,000	80	32,540	3	21,911	------	----------	1	75,000
Warren*	------	----------	------	----------	3	6,300	2	85,000	5	11,800	------	----------	------	----------	1	9,240
Washington	1	10,000	1	150,000	3	9,200	------	----------	95	29,750	------	----------	1	45,000	2	5,500
Wilkes-Barre	------	----------	2	139,000	27	291,781	73	145,470	177	48,608	5	26,979	2	88,226	4	1,370,370
Wilkinsburg*	------	----------	------	----------	2	18,000	1	55,000	158	111,990	1	1,500	------	----------	1	4,500
Williamsport	1	150,000	1	35,500	12	687,800	5	54,200	160	47,423	5	10,850	------	----------	2	115,000
York	1	1,700	2	254,000	17	305,720	5	24,200	173	75,852	------	----------	------	----------	------	----------
Total: 28 Cities, 11 Boroughs	39	6,002,600	65	4,397,370	384	11,292,851	192	1,329,680	9,122	8,906,639	116	671,252	31	9,561,283	95	11,067,735

*Borough.
[1]Included in item for Private Garages.

TABLE NO. 2.—NUMBER AND PROPOSED COST OF BUILDINGS (NEW CONSTRUCTION, ADDITIONS TO OLD BUILDINGS, ALTERATIONS, AND REPAIRS) COVERED BY PERMITS ISSUED IN CERTAIN PENNSYLVANIA CITIES AND BOROUGHS DURING THE YEAR 1927, BY INTENDED USE OF BUILDINGS—(Continued)

PART 2.—NEW NON-RESIDENTIAL BUILDINGS—(Concluded)

City or Borough	Public Buildings		Public Works and Utilities		Schools		Sheds		Stables and Barns		Stores Warehouses, Etc.		All Others		Total New Non-Residential Buildings	
	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost
Allentown			1	$400,000	1	$5,000	2	2,100	1	100	32	$444,750	4	$1,050	730	$2,355,275
Altoona	1	$34,752			3	636,000	57	8,672	91	10,000	20	254,475	11	1,333	534	1,206,409
Ambridge*							2	2,800			2	6,300	1	1,500	62	46,890
Berwick*			1	25,000			4	1,100	2	300	1	800			56	59,771
Bethlehem							2	9,000			16	54,050	7	17,950	353	608,841
Bradford											1	7,000			125	117,915
Bristol*	1	90,241									3	41,400			35	230,331
Butler	1	2,500									6	7,300	1	200	69	309,610
Carlisle*	1	11,347			1	196,000	18	2,718							137	618,445
Clairton							21	1,930			3	20,100	1	1,500	95	59,870
Coatesville							2	15,000							68	246,550
Donora*													1	15,000	5	17,200
Duquesne							1	4,000			2	25,800	1	1,500	90	101,193
Erie							50	26,910			7	31,600	7	494,629	860	1,209,335
Harrisburg			1	1,000			2	700			14	85,125			305	5,3,790
Hazleton					1	6,400	3	1,213			10	118,032	5	19,445	136	742,976
Jeannette*	1	135,000			1	20,000	9	1,275			5	23,930	1	400	46	445,450
Johnstown							40	1,232			7	15,000	1	400	235	429,183
Lancaster	1	275,000			1	185,000							9	356,815	179	985,010
McKees Rocks*	1	72,000					1	1,000							36	102,702
Meadville											2	7,300	2	3,200	47	364,210
Monessen							2	800			1	3,500			52	208,635
Monongahela	1	1,500					1	100			2	13,000			26	25,945
New Castle	1	27,200	5	64,800	1	550,000	35	2,930			7	24,100	10	5,940	385	1,326,850
Norristown*			1	9,000	2	450,500	10	610	3	2,100	9	88,650			163	878,712
Oil City			1	100,000			1	150			6	106,000	4	475	124	947,645
Philadelphia	9	348,845			22	9,314,825	24	688,995	7	171,000	209	6,282,405	66	319,435	2,246	47,744,250
Pittsburgh	2	16,000	11	326,600	5	633,300	60	15,313	1	17,220	94	2,752,850	56	1,808,141	2,311	12,373,886
Pottsville					1	10,000	1	5,000	1	700	8	252,000			110	503,425
Scranton			2	440,000	6	1,078,203	15	18,880	1	450	22	67,110	1	16,000	530	3,851,380

Sunbury															58	239,700
Tyrone*							1	1,000							32	140,700
Uniontown	1	534,000	2	55,000	2	145,000	1	40			8	80,550			104	1,028,741
Warren*											4	126,300			15	238,640
Washington							3	575			13	17,470	1	2,000	120	269,495
Wilkes-Barre					3	883,666					12	61,500			305	3,059,210
Wilkinsburg*			1	35,000	2	625,000					1	6,000			167	856,990
Williamsport			2	60,000	2	288,777	4	2,555	8	1,110	2	7,200	5	5,300	209	1,4 5,715
York					1	80,000			4	920	2	1,000	2	9,000	207	752,992
Total: 28 Cities, 11 Boroughs	21	1,548,385	28	1,615,480	55	15,100,671	372	$816,598	119	$203,900	531	$11,032,597	197	$3,081,813	11,367	$86,718,857

*Borough.

TABLE NO. 2.—NUMBER AND PROPOSED COST OF BUILDINGS (NEW CONSTRUCTION, ADDITIONS TO OLD BUILDINGS, ALTERATIONS, AND REPAIRS) COVERED BY PERMITS ISSUED IN CERTAIN PENNSYLVANIA CITIES AND BOROUGHS DURING THE YEAR 1927, BY INTENDED USE OF BUILDINGS—(Continued)

PART 3.—ADDITIONS, ALTERATIONS, AND REPAIRS TO OLD BUILDINGS

City or Borough	Additions, Alterations, and Repairs							
	Residential buildings				Non-residential buildings		Total	
	Housekeeping dwellings		Non-housekeeping dwellings					
	No.	Cost	No.	Cost	No.	Cost	No.	Cost
Allentown	299	$375,619	27	$169,175	66	$130,400	392	$675,194
Altoona	584	250,408			126	241,445	710	491,853
Ambridge*	36	43,705	1	4,500	5	62,000	42	110,205
Berwick*	19	6,630			4	330	23	6,960
Bethlehem	234	337,855	24	27,100	47	223,125	305	588,080
Bradford	84	130,730			20	45,812	104	176,542
Bristol*	35	24,725	2	1,300	4	35,052	41	61,077
Butler	33	28,925	3	1,150	9	17,200	45	47,275
Carlisle*	71	37,130	8	1,325	6	7,295	85	45,750
Clairton	138	55,210	1	50	20	5,050	159	60,310
Coatesville	40	98,700	4	4,600	2	5,000	46	108,300
Donora*	7	10,500			4	3,650	11	14,150
Duquesne	348	175,134					348	175,134
Erie	504	332,642	34	136,135	166	1,093,044	704	1,561,821
Harrisburg	258	385,475	9	54,950	146	774,050	413	1,214,475
Hazleton	92	157,781			13	88,047	105	245,828
Jeannette*	31	13,120	5	12,870	1	200	37	26,190
Johnstown	263	134,185			59	163,620	322	297,805
Lancaster	280	139,878	59	273,810	84	209,640	423	623,328
McKees Rocks*	8	19,615			1	1,800	9	21,415
Meadville	39	34,695			32	64,760	71	99,455
Monessen	39	40,070			13	13,278	52	53,348
Monongahela	40	20,850	3	7,900	3	7,050	46	35,800

New Castle	153	69,300	----------	----------	51	665,320	204	734,710
Norristown*	221	123,386	4	21,350	128	454,253	353	598,989
Oil City	255	101,442	----------	----------	54	106,285	309	207,727
Philadelphia	5,999	13,856,640	----------	----------	----------	----------	5,999	13,856,640
Pittsburgh	2,591	1,832,961	18	3,051,400	903	2,970,234	3,512	7,854,595
Pottsville	118	105,455	4	13,500	4	3,900	126	122,855
Scranton	558	698,796	17	105,008	15	47,700	590	851,504
Sunbury	47	30,880	----------	----------	1	10,000	48	40,880
Tyrone*	17	18,900	----------	----------	1	6,000	18	24,900
Uniontown	31	29,785	----------	----------	8	56,900	39	86,685
Warren*	28	40,435	5	4,320	26	59,830	59	104,585
Washington	65	19,335	----------	----------	----------	----------	65	19,335
Wilkes-Barre	905	780,818	----------	----------	----------	----------	905	780,818
Wilkinsburg*	30	86,000	----------	----------	----------	----------	30	86,000
Williamsport	292	107,744	44	4,905	133	308,881	469	421,530
York	375	336,447	5	3,130	31	115,785	411	455,362
Total: 28 cities and 11 boroughs	15,167	$21,091,996	277	$3,898,478	2,186	$7,996,936	17,630	$32,987,410

*Borough.

TABLE NO. 2.—NUMBER AND PROPOSED COST OF BUILDINGS (NEW CONSTRUCTION, ADDITIONS TO OLD BUILDINGS, ALTERATIONS, AND REPAIRS) COVERED BY PERMITS ISSUED IN CERTAIN PENNSYLVANIA CITIES AND BOROUGHS DURING THE YEAR 1927, BY INTENDED USE OF BUILDINGS—(Continued)

PART 4.—GRAND TOTAL OF ALL PERMITS

City or Borough	Total								Grand total of all permits—new construction, additions and repairs, etc.	
	Residential buildings				Non-residential buildings		Additions, alterations and repairs			
	Housekeeping dwellings		Non-housekeeping dwellings							
	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost
Allentown	539	$3,557,700			730	$2,355,275	392	$675,194	1,631	$6,588,169
Altoona	265	1,343,035			534	1,206,409	710	491,853	1,509	3,041,297
Ambridge*	97	762,500			62	46,890	42	110,205	201	919,595
Berwick*	17	86,885			56	59,771	23	6,960	96	153,616
Bethlehem	135	1,277,050			353	608,841	305	588,080	793	2,473,971
Bradford	68	249,530			125	117,915	104	176,542	297	543,957
Bristol*	6	30,030			35	230,331	41	61,077	82	321,408
Butler	50	309,500			69	309,610	45	47,275	164	666,385
Carlisle*	36	179,800			137	618,445	85	45,750	258	843,995
Clairton	60	289,700			95	59,870	159	60,310	314	409,880
Coatesville	37	286,000			68	246,550	46	108,300	151	640,850
Donora*	19	117,050			5	17,200	11	14,150	35	148,400
Duquesne	75	552,822			90	101,193	348	175,134	513	829,149
Erie	391	2,221,900	1	400,000	860	1,209,335	704	1,561,821	1,956	5,393,056
Harrisburg	319	1,811,100			305	543,790	413	1,214,475	1,037	3,569,365
Hazleton	86	770,552			136	742,976	105	245,828	327	1,759,357
Jeannette*	31	167,300			46	445,450	37	26,190	114	638,940
Johnstown	115	659,195			235	429,183	322	297,805	672	1,386,183
Lancaster	245	1,360,400	9	36,100	179	985,010	423	623,328	856	3,004,838
McKees Rocks*	33	308,285			33	102,702	9	21,415	81	432,402
Meadville	39	225,350			47	364,210	71	99,455	157	689,015
Monessen	23	126,500			52	208,635	52	53,348	127	388,483
Monongahela	23	83,100			26	25,945	46	35,800	95	144,845

New Castle	161	974,250	----------	----------	385	1,326,850	204	734,710	750	3,035,810
Norristown*	61	348,400	----------	----------	163	878,712	353	598,989	577	1,826,101
Oil City	38	255,250	----------	----------	124	947,645	309	207,727	471	1,410,622
Philadelphia	9,204	53,591,455	9	1,247,000	2,246	47,744,250	5,999	13,856,640	17,458	116,439,345
Pittsburgh	2,042	15,432,851	4	1,450,000	2,311	12,373,886	3,512	7,854,595	7,869	37,111,332
Pottsville	108	771,500	1	600,000	110	508,425	126	122,855	345	2,002,780
Scranton	221	1,168,800	----------	----------	530	3,851,380	590	851,504	1,341	5,871,084
Sunbury	24	101,209	----------	----------	58	239,700	48	40,880	130	381,789
Tyrone*	13	56,000	1	50,000	32	140,700	18	24,900	64	271,600
Uniontown	98	460,560	----------	----------	104	1,028,741	39	86,685	241	1,575,986
Warren*	54	224,615	----------	----------	15	238,640	59	104,583	128	567,840
Washington	57	208,750	----------	----------	120	269,495	65	19,335	242	497,580
Wilkes-Barre	184	1,055,777	----------	----------	305	3,059,200	905	780,818	1,394	4,895,795
Wilkinsburg*	120	1,010,300	----------	----------	167	856,990	30	86,000	317	1,953,290
Williamsport	156	842,650	2	2,800	209	1,465,715	469	421,530	836	2,732,695
York	100	380,500	----------	----------	207	752,992	411	455,362	718	1,588,854
Total: 28 cities and 11 boroughs	15,253	$93,658,001	27	$3,785,900	11,367	$86,718,857	17,630	$32,987,410	44,377	$217,150,258

*Borough.

REVIEW OF INDUSTRIAL STATISTICS

Prepared by

THE BUREAUU OF STATISTICS

The Labor Market

Reports from State Employment offices for April, 1928, indicate a further improvement in the employment situation. For the third consecutive month, the ratio of applicants for employment to available openings has shown material reduction. In January, 1928, the employment office reports showed that there were 325 applicants for employment registered for every 100 jobs available. This ratio declined in February, March, and April. The ratio reported for April was 213 applicants for every 100 jobs. In other words, unemployment, as measnred by the ratio of the number of persons applying for work at State Employment offices to number of jobs recorded as available, is approximately 22.5 per cent less prevalent now than in January, 1928. Whereas in January there were three applicants for every job there are now only two. If the same improvement is shown for the next three months, then unemployment will have ceased to be the serious problem it now is, and has been for the last few months.

The present surplus of workers over jobs, according to the State Employment office reports for April, 1928, is 17 per cent higher than for April, 1927, and 59 per cent higher than for April, 1926.

A total of 7,531 persons applied for work at State Employment offices during April, 1928. Male applicants numbered 4,759, or 63 per cent of the total. Employment opportunities, however, were scarce, only 3,538 workers were needed by employers. The proportionate demand for women workers was slightly higher than for men. Calls for women workers were 48.8 per cent of the available applicants, and calls for male workmen were 45.9 per cent.

The demand for workers was light in nearly all industries. Spring activity in the construction industry brought some calls for building tradesmen, but the volume of workers needed was much less than at this time last year. Manufacturing industries showed little new activity. There was a brisk demand for help in the clothing industry, principally for women workers. The metal industries showed about the same demand as in March. Work in automobile plants and railroad car shops was slightly better than in March. Very few extra men were needed on transportation lines during the month. The opening of summer hotels and cottages created some slight demand for help in the hotel and restaurant group. A few retail stores were employing extra help in preparation for early May special feature

sales. The demand for farm hands also showed some increase. House-cleaning kept women day workers fairly well employed throughout the month. Unskilled male labor was practically 55 per cent unemployed.

Employment, Wages, and Hours Worked

The report for April, 1928, marks the first publication of employment and wage figures in the form of index numbers. The work of converting the mass of employment and wage figures accumulated during the last five years into index numbers was performed by the Philadelphia Federal Reserve Bank with whom the Department cooperates in the collection and publication of employment data. A very comprehensive report on employment in Pennsylvania during the last five years is being prepared by J. Frederic Dewhurst of the Philadelphia Federal Reserve Bank. Copies of this report when printed will be available to readers of "Labor and Industry." This report will carry complete index numbers of employment and wages for all industry groups for the period 1922-1927.

Reports from 810 manufacturing establishments in the state in April did not bear out the hopeful signs indicated in the reports from employment offices. Manufacturing employment in April showed a 2 per cent decrease compared with March. This difference is primarily due to the fact that the State Employment office reports cover all industry groups whereas the manufacturing reports, of course, cover only manufacturing industries. Certainly it would seem that whatever gain in employment was made during April did not occur in manufacturing industries. The level of manufacturing employment for April, 1928, was 8.2 per cent lower than for the same month in 1927. Total wage payments also dropped in April. Total payrolls for these 810 manufacturing establishments in April, 1928, were 5.9 per cent less than in March, 1928, and were 13.7 per cent less than the totals for April, 1927. The total of hours worked as reported by 474 plants in April, 1928, was 6.9 per cent less than in March.

In the metal group of manufacturing industries, blast furnaces were operating at approximately 50 per cent of normal capacity during April. Rolling mills, foundries, and machine shops were fairly busy. Machinery manufacturing plants reported normal employment and show the best volume of business of any of the metal industries. The electrical apparatus group reported a 13.2 per cent decline in employment compared with March. This decrease was seasonal and occurred principally in the radio supplies industry. Employment in automobile plants was 14.6 per cent higher than in March. The Pennsylvania automobile plants are now only 9 per cent below normal operation.

Locomotive and railroad car building continued on the decline and employment for this group is 25 per cent below the level of last year. Car repair shops, however, were busy and reported a slight increase in employment.

Employment in the textile and clothing industries fell off 10 per cent during April. Silk goods led the decline with a 22.7 per cent reduction in employment compared with March. One large silk mill dropped 5,500 workers during April. Cotton goods, dyeing plants, and men's and women's garment shops also were affected by seasonal dullness in the industry.

Candy manufacture decreased in April following a large volume of Easter trade. Cool weather has temporarily delayed employment expansion in the ice-cream industry.

The reduction of building operations in 1928 compared with 1927 is clearly seen in the reduced employment reported for the building supply groups. Employment in the brick, cement, lumber, and glass industries is 17 per cent below last year. Employment in building trades also is approximately 12 per cent below the total for April, 1927.

In general, it appears that manufacturing employment after a fairly good month in March slipped back a little in April. The evidences of business improvement noticed during March were more or less transitory, and the increases were not sustained throughout April. The slight flurry of pre-Easter business evidently passed quickly. Employment must show a more definitely increasing tendency before it can be convincingly said that the business prosperity of 1926 and 1927 will be duplicated in 1928.

Industrial Accidents and Compensation Costs

April was a comparatively safe month for workmen in the industries of Pennsylvania. The totals of 139 fatal and 10,928 non-fatal accidents reported to the Bureau of Workmen's Compensation during April were the lowest reported for any month in more than five years. The recent concerted drive for safety has had its effect. The proclamation of Governor Fisher, dated March 7, 1928, designating April as "Safety Month," was the first step in the recent accident-prevention campaign. The Pennsylvania Safety Congress held in Philadelphia, March 21, 22, 23, 1928, under the auspices of the state department of Highways, Health, Labor and Industry, Mines, Public Instruction, and the Public Service Commission, brought together for the first time in Pennsylvania the various groups vitally interested in the common cause of the preservation of the lives and of the health of Pennsylvania's citizens. Finally, the automobile inspection service, fostered by the Department of Highways throughout the month of April, brought safety very forcibly and effectively to the

attention of car owners and drivers in Pennsylvania. It is estimated that approximately half of the licensed car owners in the state submitted their cars to the inspection tests. Probably at no other time in the history of the accident-prevention and safety movement has practical safety been more universally explained and applied as during the "Safety Month" just ended. Safety was the keynote during the month in mills and factories, in mines and quarries, in stores and offices, in cars and trains, in schools and homes, and on streets and highways. Accident prevention and safety were bywords.

This widespread safety effort is beginning to show results. In the sphere of industrial accidents, with which the Department of Labor and Industry is concerned, accidents in April show a 12.8 per cent decrease compared with March. Fatal accidents were 9.6 per cent less, and non-fatal accidents were 1.611, or 13 per cent less than in March. Compared with the report for April, 1927, accidents in April, 1928, were 18 per cent less for the fatal group, and 13 per cent less for the non-fatal group.

Accidents have shown consistent reductions for each of the first four months in 1928, compared with the totals for the corresponding months last year. The accident experience for the first four months in 1928 compared with the experience for the same period in 1927 is as follows:

Period	Fatal accidents	Non-fatal accidents
Four months, 1927	686	54,623
Four months, 1928	596	47,354
Decrease in 1928	—90 (13.1%)	—7,269(13.3%)

That the decrease of accidents is general is indicated by the industrial analysis of the 139 fatalities reported during April. The transportation and miscellaneous industry groups are the only two to show an increase in fatal accidents over March. Thirteen fatalities occurring on steam railroads were reported during April compared with 7 during March. This figure of 13 fatalities for steam railroads during April, however, is not high. Fatal accidents on steam railroads normally average 14 a month. Seven fatalities were reported from miscellaneous industries during April, an increase of 2 over March. Accidental deaths in other industry groups during April were as follows: construction and contracting 12, manufacturing 23, anthracite coal mining 38, bituminous coal mining 29, public utilities 2, non-coal mines and quarries 2, trade (stores) 5, and state and municipal 8. Strangely enough, the fatality totals for four industry groups —manufacturing, anthracite mining, public utilities, and state and municipal—were exactly the same in April as in March. Bituminous coal mining fatalities were 10 less in April than in March, construc-

tion accidents were 3 less, deaths in quarries 2 less, and in trade, fatal accidents were 1 less than last month.

Causes of fatal accidents in April show little change compared with previous months. Falling objects, cars and engines, and explosive substances continued as the leading causes of death to workmen. Fatalities due to cars and engines, motor vehicles, and electricity were more prevalent than in March. Thirteen persons were killed by falls during April. The following detail as to the manner in which these falls occurred is interesting:

Occupation of Worker	Cause of Accident
Window cleaner	Fell from second floor window
Steel rigger	Fell when hoisting tower collapsed
Timber man—subway	Fell 20 feet from pipe
Steel erector	Fell 9 stories
Bricklayer	Scaffold broke
Logger—lumber camp	Tripped over object and fell
Janitor	Fell over small pile of lumber
Painter	Fell several feet
Footman—mine shaft	Fell down shaft
Attendant—boiler house	Fell on icy pavement
Laborer	Fell from car on coal wharf
Tinner	Scaffold broke
Janitor	Cause of fall unknown

At least five of these accidents might have been prevented. Properly constructed scaffolds do not collapse, good housekeeping keeps floors clear of objects that can be tripped over, and a safety belt is often the thread upon which a window cleaner's life hangs.

During April, agreements for the payment of compensation were approved in 5,992 cases involving payments aggregating $1,280,958 distributed as follows:

150 fatal cases	$515,488
262 permanent disability cases	300,326
5,580 temporary disability cases	465,144

Compensation awards for the first four months in 1928 total $4,531,756 compared with $3,917,931 for the corresponding period in 1927, an increase in 1928 of $613,825, or 15.7 per cent.

Permanent disability cases compensated during April included awards for the loss, or loss of use of, 43 eyes, 5 arms, 24 hands, 119 fingers, 85 phalanges, 8 legs, and 10 feet. There were two cases of double hand loss compensated during the month, together with 9 awards for facial disfigurements, and 13 awards for miscellaneous permanent total disability. Eye, arm, foot, and phalange losses show large reductions compared with March.

The severity of the temporary injuries compensated during April was rather high. The time loss averaged 51 days per case. The average day loss for all temporary disability cases compensated during the first four months in 1928 is 47 days.

Prior to January 1, 1928, accidents resulting in disability lasting 10 days or less were not compensable under the Pennsylvania Compensation Act. The number of cases that are compensable under the provisions of the amended Workmen's Compensation Act, which reduces the waiting period from 10 to 7 days continues to grow. Agreements were approved during April in 615 cases in which the time lost was between 7 and 10 days. Since January 1, 1928, payments have been made in 1,616 cases of this new 8 to 10 day loss group.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICE FOR THE MONTH OF APRIL, 1928

	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	7,531	4,759	2,772	3,538	2,185	1,353	3,782	2,313	1,469	2,664	1,739	925
Total: Industrial group (skilled)	2,414	1,770	644	977	767	210	1,116	774	342	557	455	102
Building and construction	352	352	----------	150	150	----------	162	162	----------	98	98	----------
Shipbuilding	57	57	----------	32	32	----------	32	32	----------	18	18	----------
Chemicals and allied product	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clay, glass and stone products	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clothing	29	23	6	36	13	23	17	13	4	10	8	2
Textiles	83	49	34	17	1	16	8	3	5	3	----------	3
Food and kindred products	13	10	3	4	3	1	3	2	1	2	2	----------
Leather, rubber and composition goods	26	26	----------	10	10	----------	10	10	----------	6	6	----------
	17	17	----------	5	4	1	7	5	2	1	1	----------
Paper and printing	8	8	----------	6	6	----------	5	5	----------	2	2	----------
Metals and metal products	559	553	6	364	357	7	325	318	7	192	188	4
Mines and quarries	3	3	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Transportation and public utilities	226	210	16	55	54	1	65	59	6	43	42	1
Hotel and restaurant	194	83	111	109	39	70	135	38	97	49	22	27
Wholesale and retail trade	148	55	93	43	26	17	58	29	29	24	18	6
Miscellaneous	669	294	375	146	72	74	289	98	191	109	50	59
Total: Other groups	5,117	2,989	2,128	2,561	1,418	1,143	2,666	1,539	1,127	2,107	1,284	823
Professional and technical	342	295	47	107	93	14	151	122	29	64	56	8
Agriculture	39	39	----------	31	31	----------	33	33	----------	27	27	----------
Semi-skilled	1,698	568	1,130	821	219	602	834	260	574	479	172	307
Unskilled	1,982	1,851	131	915	862	53	954	905	49	856	818	38
Casual and day workers*	1,056	236	820	687	213	474	694	219	475	681	211	470
March, 1928	10,463	6,139	4,324	3,811	2,302	1,509	4,292	2,507	1,785	2,671	1,655	1,016
February, 1928	8,754	5,627	3,127	2,961	1,989	972	3,214	2,143	1,071	2,193	1,523	635
January, 1928	9,741	6,477	3,264	2,996	1,858	1,138	3,220	2,028	1,192	2,062	1,334	728
April, 1927	11,397	7,353	4,044	6,252	4,224	2,028	6,301	4,333	1,968	5,308	3,747	1,561
April, 1926	12,096	8,446	3,650	9,020	6,620	2,400	8,820	6,560	2,260	7,596	5,741	1,855
April, 1925	11,749	8,318	3,431	7,749	5,953	1,796	8,039	6,373	1,666	7,027	5,614	1,413

*The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS—week ended	
		No. of wage earners week ended April 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended April 15, 1928	Index numbers 1923-1925=100				
			April 1928	Compared with March 1928	Compared with April 1927		April 1928	Compared with March 1928	Compared with April 1927	April 15, 1928	March 15, 1928
ALL INDUSTRIES: (51)	810	258,506	86.6	— 2.0	— 8.2	$6,475,902	86.1	— 5.9	—13.7	$25.05	$26.16
Metal products:	231	100,063	82.5	— 1.0	— 9.4	2,737,642	84.5	— 5.3	—13.7	27.36	28.55
Blast furnaces	10	2,179	49.7	— 6.6	—33.3	61,407	50.6	— 6.1	—37.1	28.18	28.22
Steel works and rolling mills	43	54,035	79.3	— 0.1	—11.3	1,505,653	81.2	— 5.5	—16.3	27.83	29.43
Iron and steel forgings	9	1,667	85.6	+ 0.2	— 6.4	45,799	96.2	+ 6.9	— 4.1	27.47	25.56
Structural iron work	9	3,678	94.5	+ 2.1	+ 2.2	95,980	89.8	— 4.1	— 4.7	26.10	27.68
Steam and hot water heating appliances	17	4,496	93.9	+ 3.5	+ 0.4	126,898	97.6	— 2.1	— 5.7	28.22	30.42
Stoves and furnaces	9	910	76.5	— 1.8	—20.7	24,067	70.9	— 0.7	—29.2	26.45	26.36
Foundries	40	7,487	82.4	— 0.2	— 9.8	198,924	80.8	— 4.0	—18.7	26.57	27.57
Machinery and parts	40	9,257	100.7	+ 1.8	— 0.7	277,572	106.3	+ 0.1	— 2.7	29.99	30.46
Electrical apparatus	17	6,184	91.8	—13.2	+ 0.5	147,602	96.4	—19.1	+ 2.9	23.87	25.63
Engines and pumps	10	3,303	89.4	— 1.0	— 7.4	90,431	90.8	— 4.7	— 6.4	27.38	28.49
Hardware and tools	19	6,025	83.1	— 0.8	—11.3	141,254	84.0	— 4.8	—13.8	23.44	24.11
Brass and bronze products	11	842	76.9	— 3.8	— 5.5	22,055	75.9	— 7.2	— 9.4	26.19	28.75
Transportation equipment:	40	30,283	73.3	— 6.7	—20.7	837,923	69.8	—10.6	—25.3	27.67	28.42
Automobiles	6	4,630	90.9	+14.6	— 9.1	152,985	104.0	+17.5	— 0.9	33.04	37.23
Automobile bodies and parts	11	6,674	79.5	— 2.8	+ 5.6	203,787	75.0	— 2.1	+ 5.6	30.53	30.34
Locomotives and cars	13	13,130	64.0	— 2.1	—24.7	325,618	55.0	— 8.9	—35.9	24.80	26.70
Railroad repair shops	6	3,496	86.7	+ 5.9	— 1.3	88,432	82.8	+ 0.7	— 6.8	25.30	26.61
Shipbuilding	4	2,353	44.9	+ 2.0	—60.8	67,101	44.1	+ 3.5	—59.3	28.52	27.12
Textile products:	167	54,101	95.2	—10.2	— 5.6	1,118,437	95.2	—17.4	—11.4	20.67	22.43
Cotton goods	14	3,736	85.3	— 7.6	—12.1	76,393	75.2	—10.5	—24.9	20.45	21.12
Woolens and worsteds	16	5,795	81.4	— 6.9	—10.7	101,013	67.2	—17.3	—29.0	17.43	19.65
Silk goods	40	15,781	92.9	—22.7	—10.2	304,875	97.6	—29.5	— 9.4	19.32	21.08
Textile dyeing and finishing	9	1,979	124.0	— 6.3	— 1.4	47,510	124.9	— 7.8	— 7.0	24.01	24.44
Carpets and rugs	10	2,674	83.7	+ 0.4	—12.7	58,566	72.7	— 9.8	—25.1	21.90	24.39
Hats	5	4,028	100.7	+ 2.3	+ 1.9	94,349	92.4	—12.9	+ 4.6	23.42	27.53
Hosiery	27	11,853	116.8	— 2.2	+ 2.5	299,335	131.8	— 9.5	— 4.6	25.25	27.31
Knit goods, other	15	2,981	84.3	+ 1.1	+ 9.5	52,682	84.2	— 4.9	+13.2	17.67	18.78

Men's clothing	11	1,654	85.5	— 7.4	—20.3	27,887	68.1	—28.4	—38.1	16.86	22.24
Women's clothing	9	1,249	117.9	— 7.8	+ 5.6	18,451	121.8	—13.2	— 3.9	14.77	15.69
Shirts and furnishings	11	2,371	91.4	— 9.2	— 1.0	37,376	89.5	— 8.3	— 0.3	15.76	15.59
Foods and tobacco:	102	21,677	92.1	— 0.9	+ 9.3	$418,682	87.3	— 7.5	+ 0.9	$19.31	$21.42
Bread and bakery products	29	4,322	104.6	— 0.7	— 3.5	122,858	98.8	— 1.6	— 7.7	28.43	28.95
Confectionery	14	3,913	84.8	— 5.9	+ 0.4	70,847	86.6	—17.0	— 5.8	18.11	20.53
Ice cream	11	1,261	84.8	+ 1.1	— 6.0	40,187	91.4	— 1.9	— 4.5	31.87	32.84
Meat packing	14	1,959	90.3	— 3.3	— 4.2	53,343	83.7	— 7.0	— 7.7	27.23	28.27
Cigars and tobacco	34	10,222	92.8	— 1.2	+27.6	131,447	80.7	—12.2	+22.8	12.86	14.48
Stone, clay and glass products:	67	17,517	82.5	+ 1.5	—17.5	455,373	77.1	— 3.1	—24.6	26.00	27.22
Brick, tile and pottery	30	4,531	86.3	+ 2.1	—13.4	107,240	82.4	— 2.1	—25.0	23.67	24.72
Cement	14	5,796	80.8	+ 2.1	—22.4	165,743	79.4	— 1.2	—30.4	28.60	29.55
Glass	23	7,190	84.5	+ 0.4	—16.0	182,390	75.0	— 5.3	—17.9	25.37	26.92
Lumber products:	45	4,304	70.0	— 3.8	—13.9	88,118	67.0	— 9.1	—19.6	20.47	21.66
Lumber and planing mills	19	1,937	62.0	— 2.4	—13.8	43,090	66.9	— 2.8	—22.6	22.25	22.33
Furniture	20	1,652	69.9	— 4.6	—12.1	33,795	60.2	—16.3	—21.6	20.46	23.34
Wooden boxes	6	715	112.1	— 5.3	— 1.8	11,233	109.2	— 7.5	+ 3.7	15.70	16.08
Chemical products:	47	10,886	95.7	— 0.2	—11.8	320,558	105.4	+ 1.4	—12.0	29.45	29.01
Chemicals and drugs	27	1,433	95.0	+ 0.6	+ 4.9	38,421	95.4	— 2.2	+ 4.7	26.81	27.61
Coke	3	2,853	123.3	+ 2.2	+12.8	80,173	122.7	— 1.9	+ 5.0	28.10	29.25
Explosives	3	508	117.3	— 1.8	— 8.4	11,568	96.7	+ 0.1	—24.3	22.77	22.36
Paints and varnishes	9	1,044	129.1	+ 0.5	— 6.5	25,974	124.2	— 5.8	—15.9	24.88	26.48
Petroleum refining	5	5,048	82.2	— 1.6	—25.4	164,422	98.4	— 5.5	—19.9	32.57	30.47
Leather and rubber products:	51	11,569	99.8	— 0.7	+ 4.3	257,113	101.4	— 3.2	— 2.0	22.22	22.81
Leather tanning	17	5,926	107.2	+ 1.1	+ 8.1	145,554	106.9	— 1.5	+ 1.4	24.56	25.17
Shoes	23	4,080	91.1	— 2.9	+ 4.5	71,325	89.9	— 6.3	— 3.4	17.48	18.10
Leather products, other	7	578	107.1	— 3.8	—13.9	12,151	97.8	— 9.4	—16.3	21.02	22.33
Rubber tires and goods	4	985	83.9	+ 0.4	—11.0	28,083	97.8	— 2.0	—18.9	28.51	29.19
Paper and printing:	57	8,106	92.5	— 2.7	— 1.3	242,056	105.2	— 3.6	— 0.6	29.86	30.24
Paper and wood pulp	13	3,633	83.7	— 6.6	— 5.2	104,777	94.0	— 7.3	— 5.3	28.84	29.08
Paper boxes and bags	6	658	88.5	— 2.0	— 2.0	9,592	99.0	— 6.5	— 8.9	14.58	15.43
Printing and publishing	38	3,815	104.7	+ 1.7	+ 3.2	127,687	117.7	+ 0.8	+ 4.7	33.47	33.83

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		April 15, 1928	March 15, 1928	Per cent change	April 15, 1928	March 15, 1928
ALL INDUSTRIES: (47)	474	6,978,538	7,493,981	— 6.9	$.572	$.561
Metal products:	168	3,363,650	3,500,403	— 3.9	.602	.603
Blast furnaces	8	99,777	113,305	—11.9	.565	.557
Steel works and rolling mills	27	1,793,984	1,878,448	— 4.5	.625	.628
Iron and steel forgings	8	66,627	69,071	— 3.5	.575	.574
Structural iron work	6	71,571	70,704	+ 1.2	.579	.579
Steam and hot water heating appliances	11	120,209	122,865	— 2.2	.611	.608
Foundries	34	307,324	317,917	— 3.3	.599	.605
Machinery and parts	30	376,607	376,697	— 0.0	.595	.598
Electrical apparatus	13	164,058	183,221	—10.5	.515	.506
Engines and pumps	10	151,975	159,788	— 4.9	.595	.595
Hardware and tools	13	180,694	175,413	— 3.0	.519	.530
Brass and bronze products	8	30,824	32,974	— 6.5	.560	.565
Transportation equipment:	30	932,321	925,292	+ 0.8	.623	.613
Automobiles	6	240,073	213,184	+12.6	.637	.642
Automobile bodies and parts	8	321,759	335,528	— 4.1	.605	.587
Locomotives and cars	9	223,464	227,091	— 1.6	.602	.604
Railroad repair shops	4	85,303	86,556	— 1.4	.638	.659
Shipbuilding	3	61,722	62,933	— 1.9	.715	.667
Textile products:	75	994,287	1,317,779	—21.5	.455	.446
Cotton goods	11	65,407	68,959	— 5.2	.479	.482
Woolens and worsteds	10	99,379	121,316	—18.1	.460	.451
Silk goods	21	336,868	595,570	—43.4	.423	.441
Textile dyeing and furnishing	4	29,385	33,407	—12.0	.487	.482
Carpets and rugs	4	62,191	77,730	—20.0	.543	.477
Hosiery	6	258,592	267,001	— 3.1	.522	.486
Knit goods, other	8	52,381	51,691	+ 1.3	.393	.381
Men's clothing	3	5,539	5,636	— 1.7	.295	.275
Women's clothing	4	33,403	36,452	— 8.4	.359	.371
Shirts and furnishings	4	51,142	60,017	—14.8	.315	.327

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Concluded)

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		April 15, 1928	March 15, 1928	Per cent change	April 15, 1928	March 15, 1928
Foods and tobacco:	45	298,041	318,257	— 6.4	$.508	$.493
Bread and bakery products	19	104,345	106,335	— 1.9	.531	.526
Confectionary	5	88,567	100,514	—11.9	.432	.444
Ice cream	8	45,032	46,364	— 2.9	.576	.605
Meat packing	9	54,082	58,635	— 7.8	.535	.536
Cigars and tobacco	4	6,015	6,409	— 6.1	.480	.324
Stone, clay and glass products:	35	477,111	501,903	— 4.9	.533	.557
Brick, tile and pottery	14	117,051	119,891	— 2.4	.552	.529
Cement	8	154,136	160,471	— 3.9	.539	.522
Glass	13	205,924	221,541	— 7.0	.587	.599
Lumber products:	36	102,942	112,861	— 8.8	.511	.507
Lumber and planing mills	15	43,472	45,528	— 4.5	.540	.511
Furniture	17	49,382	55,785	—11.5	.510	.528
Wooden boxes	4	10,088	11,548	—12.6	.391	.387
Chemical products:	19	297,965	299,085	— 0.4	.604	.587
Chemicals and drugs	10	46,330	46,874	— 1.2	.496	.485
Paints and varnishes	6	41,596	45,273	— 8.1	.546	.550
Petroleum refining	3	210,039	206,938	+ 1.5	.640	.619
Leather and rubber products:	27	245,559	254,150	— 3.4	.486	.474
Leather tanning	9	111,361	112,601	— 1.1	.524	.533
Shoes	10	75,885	82,266	— 7.8	.369	.345
Leather products other,	4	9,244	9,851	— 6.2	.527	.521
Rubber tires and goods	4	49,069	49,432	— 0.7	.572	.579
Paper and printing:	39	266,662	264,251	+ 0.9	.607	.602
Paper and wood pulp	9	149,649	150,031	— 0.3	.543	.537
Paper boxes and bags	3	7,640	7,888	— 3.1	.323	.373
Printing and publishing	27	109,373	106,332	+ 2.9	.714	.707

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of plants reporting	EMPLOYMENT			PAYROLLS			AVERAGE WEEKLY EARNINGS—week ended	
		No. of wage earners week ended April 15, 1928	Index numbers 1923-1925=100		Total weekly payroll week ended April 15, 1928	Index numbers 1923-1925=100			
			April 1928	Compared with March 1928		April 1928	Compared with March 1928	April 15, 1928	March 15, 1928
Allentown-Bethlehem-Easton	76	20,685	87.9	+ 0.8	$517,013	78.7	— 3.1	$24.99	$25.97
Erie	10	3,359	97.0	+ 0.1	105,719	100.0	+ 1.8	31.47	30.32
Harrisburg	34	6,473	90.6	— 1.6	137,405	85.9	— 3.7	21.23	21.64
Hazleton-Pottsville	19	4,243	97.7	— 4.3	90,368	88.2	— 9.2	20.81	21.55
Johnstown	13	970	101.6	+ 0.1	21,888	75.9	—22.6	22.56	29.19
Lancaster	30	4,821	109.7	— 1.0	100,176	93.5	— 2.7	20.78	21.12
New Castle	11	5,807	106.9	— 2.7	164,979	100.2	— 4.4	28.41	28.82
Philadelphia	247	83,705	86.4	— 3.7	2,138,042	74.3	— 9.5	25.54	27.14
Pittsburgh	92	61,495	91.6	+ 0.2	1,699,405	82.1	— 5.3	27.63	29.21
Reading-Lebanon	63	20,101	89.6	— 1.6	488,416	83.3	— 2.7	24.30	24.54
Scranton	33	5,463	111.3	+ 3.9	95,383	113.6	— 8.6	17.46	19.89
Sunbury	27	6,951	54.5	—39.6	147,937	56.7	—41.5	21.28	21.96
Wilkes-Barre	21	5,829	74.8	— 0.8	105,539	77.4	— 9.5	18.11	19.83
Williamsport	23	5,275	77.7	+ 5.1	132,408	79.9	+ 8.4	25.12	22.78
York	43	5,868	87.9	+ 0.9	116,928	88.2	+ 1.5	19.93	19.80

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

ACCIDENT REPORTS RECEIVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	163	135	11,840	12,138
February	146	113	11,799	12,058
March	148	139	12,400	12,687
April	139	100	10,828	11,067
May				
June				
Total—1928	536	487	46,867	47,690
1927				
January	170	144	14,353	14,667
February	184	154	12,947	13,285
March	163	150	14,182	14,495
April	169	145	12,548	12,862
May	173	139	12,730	13,042
June	186	124	13,317	13,627
Total—1927	2,064	1,665	157,025	160,754
*Grand Total	29,462	11,751	2,184,559	2,225,772

AGREEMENTS APPROVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	168	280	5,288	5,736
February	136	242	5,677	6,055
March	124	331	5,969	6,424
April	150	262	5,580	5,992
May				
June				
Total—1928	578	1,115	22,514	24,207
1927				
January	158	250	4,760	5,168
February	174	363	3,994	4,531
March	174	323	4,945	5,442
April	131	231	6,829	7,191
May	128	262	7,839	8,229
June	186	309	7,531	8,026
Total—1927	2,001	3,179	69,406	74,886
*Grand Total	24,334	25,078	817,872	867,284

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	Awarded: Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded
January	$1,100,855	$ 470,921	$ 237,571	$ 392,363
February	957,996	389,497	220,404	348,095
March	1,191,947	395,997	380,960	414,990
April	1,280,958	515,488	300,326	465,144
May				
June				
Total—1928	$4,531,756	$1,771,903	$1,139,261	$1,620,592
1927				
January	$ 995,376	$ 528,084	$ 210,370	$ 256,922
February	1,097,268	504,421	374,696	218,151
March	979,090	510,805	251,823	216,462
April	846,197	393,650	204,166	248,381
May	1,087,132	380,418	268,041	438,673
June	1,408,339	482,313	312,575	613,451
Total—1927	$13,329,557	$ 5,772,868	$ 3,226,464	$ 4,330,225
*Grand Total	$139,516,840	$67,19[illegible],553	$29,020,591	$ 3,297 6[illegible]3

1928	Paid: Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
January	$ 927,633	$ 297,118	$ 238,152	$ 392,363
February	785,422	215,075	222,252	348,095
March	1,039,980	266,751	358,239	414,990
April	1,017,857	287,900	264,813	465,141
May				
June				
Total—1928	$3,770,892	$1,0[illegible]6 841	$1,083,453	$1,620,5[illegible]2
1927				
January	$ 867,141	$ 331,075	$ 279,144	$ 256,922
February	746,916	279,197	249,568	218,151
March	851,925	359,705	275,758	216,462
April	785,120	290,396	246,343	248,381
May	916,262	211,002	266,587	438,673
June	1,517,144	331,392	572,301	613,451
Total—1927	$11,697,889	$ 3,492,763	$ 3,860,969	$ 4,330,225
*Grand Total	$97,3[illegible]8,468	$29,779,125	$24,231,650	$43,297,6[illegible]3

*Since the inception of the Act, January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	12	$ 26,774	5	$ 13,287	15	$30,734	14	$24,898	47	$69,998
February	9	23,580	7	17,577	13	27,637	11	20,210	29	47,755
March	8	20,594	11	29,159	20	43,017	20	38,297	69	107,771
April	8	20,418	5	13,526	24	53,339	10	20,218	43	66,264
May										
June										
Total—1928	37	$91,366	28	$73 549	72	$154,757	55	$103,623	188	$291,788
1927										
January	10	$25,714	8	$20,640	13	$26,759	8	$14,708	34	$49,923
February	19	46,639	9	23,220	28	54,922	18	31,609	77	116,274
March	11	28,164	8	19,545	15	28,105	10	16,724	46	69,564
April	4	10,240	4	10,143	15	30,905	10	16,763	32	46,858
May	9	23,060	7	17,291	15	29,728	10	18,624	50	77,095
June	8	19,647	3	7,714	19	38,246	22	39,747	47	72,249
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand Total	1,286	$2,836,943	922	$2,052,475	2,919	$5,319,956	1,772	$2,931,170	7,236	$10,056,199

**PERMANENT INJURIES.—(Continued)

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	118	$37,612	93	$16,432	20	$4,248	3	$13,588
February	93	33,824	99	21,192	15	5,629	5	23,000
March	99	38,145	118	25,709	10	4,461	18	73,807
April	110	4[illegible],4[illegible]6	85	18,961	9	4,969	13	54,105
May								
June								
Total—1928	429	$158,077	395	$82,294	54	$19,307	39	$164,500
1927								
January	100	$34,172	99	$19,164	12	$7,227	3	$12,002
February	154	54,072	97	18,274	7	2,451	6	27,234
March	148	45,955	130	23,366	7	1,671	4	18,729
April	113	38,669	88	14,417	6	3,816	7	32,355
May	95	31,829	95	18,582	7	3,296	10	48,536
June	143	44,786	99	19,408	6	3,588	19	67,190
Total—1927	1,502	$509,006	1,202	$226,122	120	$51,089	89	$370,067
*Grand Total	7,192	$2,467,112	6,031	$1,142,736	418	$238,135	476	$1,975,[illegible]86

*Since the inception of the act—January 1, 1916. **Multiple losses separated respectively.

NOTE: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING APRIL, 1928

Cause	Total of all industries		Construction and Contracting						Coal Mining				Quarrying and mining other than coal mining		Manufacturing																			
			Building construction		Other construction		Contracting		Anthracite		Bituminous				Total of manufacturing industries		Chemicals and allied products		Clay, glass and stone products		Clothing		Food and kindred products		Leather, rubber, and composition goods		Lumber, wood and their products		Paper and paper products and printing and publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	139	10,928	5	624	3	177	4	301	38	2,022	29	1,615	2	158	13	3,934	3	184	4	351	--	153	1	320	1	138	4	292	1	188	--	234
Working machinery and processes	3	912	--	20	--	9	--	9	--	42	--	8	--	8	3	664	1	7	--	2	--	7	1	30	--	28	1	77	--	51	--	64
Boilers and pressure apparatus	1	16	--	--	--	--	--	--	--	2	--	--	--	1	1	11	1	2	--	--	--	--	--	--	--	1	--	--	--	1	--	--
Pumps and prime movers	--	23	--	1	--	2	--	1	--	5	--	1	--	1	--	6	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--
Transmission apparatus	--	17	--	2	--	--	--	2	--	1	--	1	--	--	--	9	--	1	--	--	--	--	--	--	--	1	--	2	--	--	--	1
Elevators and hoists	2	78	--	8	--	--	--	4	--	16	--	7	--	2	1	23	--	3	--	1	--	2	--	4	--	2	--	1	1	3	--	1
Cranes and derricks	1	194	--	9	--	13	--	24	--	9	--	7	--	6	1	117	--	6	--	7	--	--	--	3	--	--	--	2	--	3	--	1
Cars and engines	29	817	--	2	--	--	--	2	5	255	6	313	1	6	4	63	--	2	--	14	--	--	--	2	--	1	--	3	--	--	--	--
Motor vehicles	13	434	--	14	2	12	1	18	--	1	--	1	--	2	2	129	--	8	2	6	--	3	--	24	--	2	--	6	--	9	--	2
Other vehicles	2	81	--	4	--	2	--	5	--	5	--	1	--	--	1	32	1	1	--	2	--	--	--	17	--	--	--	10	--	--	--	--
Hand trucks	1	138	--	10	--	--	1	7	--	--	--	1	--	1	--	82	--	4	--	14	--	2	--	9	--	3	--	4	--	5	--	5
Water and air craft	--	9	--	1	--	--	--	2	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--
Handling objects—by hand	2	2,323	--	142	1	49	--	73	--	366	--	249	--	4	--	1,000	--	49	--	124	--	2	--	74	--	32	--	61	--	3	--	53
Hand tools	3	1,107	--	58	--	18	--	22	1	23	--	17	--	20	1	387	--	28	--	20	--	12	--	36	--	14	1	47	--	11	--	14
Electricity	8	78	--	2	--	--	--	1	1	8	3	2	1	1	1	21	--	--	1	--	--	--	--	1	--	--	--	1	--	--	--	2
Explosive substances	16	119	--	5	--	--	--	2	9	44	5	18	--	1	1	27	--	4	--	2	--	--	--	1	--	--	--	1	--	1	--	3
Hot and corrosive substances	1	370	--	28	--	10	--	8	--	16	--	5	--	2	1	237	--	18	--	20	--	2	--	11	--	11	--	3	--	13	--	9
Falling objects	37	1,69	2	72	--	2	--	42	19	587	14	523	--	43	1	304	--	11	--	29	--	1	--	15	--	5	--	25	--	12	--	18
Falls of persons	13	1,385	3	155	--	27	2	47	2	182	--	91	--	9	3	460	--	34	--	41	--	14	--	64	--	23	2	34	--	30	--	25
Stepping upon or striking against objects	1	723	--	73	--	20	--	24	1	158	--	6	--	8	--	244	--	11	--	30	--	11	--	22	--	11	--	12	--	8	--	22
Miscellaneous	6	410	--	18	--	2	--	8	--	96	1	43	--	2	2	116	--	5	1	18	--	4	--	13	1	3	--	3	--	5	--	11

*F=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING APRIL, 1928—(Concluded)

Cause	Manufacturing—Concluded																Transportation and Public Utilities						Other Industries									
	Metals and Metal Products																								Trading							
	Total		Blast furnaces and steel works		Rolling mills		Foundries and machine shops		Fabrication		Car repair shops		Automobile service stations		Other		Steam railroads		Other transportation		Public utilities		Hotels and restaurants		Retail		Wholesale		State and municipal		Miscellaneous	
	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	8	2,021	1	58	2	376	1	388	2	827	2	217	--	155	1	53	13	336	--	149	2	149	--	103	4	499	1	109	8	297	7	428
Working machinery and processes	--	287	--	1	--	51	--	50	--	168	--	16	--	1	--	22	--	1	--	-----	--	5	--	9	--	19	--	3	--	5	--	33
Boilers and pressure apparatus	--	7	--	-----	--	1	--	-----	--	2	--	3	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	2
Pumps and prime movers	--	4	--	-----	--	1	--	-----	--	3	--	-----	--	-----	--	-----	--	-----	--	-----	--	1	--	-----	--	-----	--	-----	--	2	--	1
Transmission apparatus	--	4	--	-----	--	-----	--	2	--	2	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----	--	-----
Elevators and hoists	--	6	--	-----	--	1	--	1	--	4	--	-----	--	-----	--	-----	--	1	--	-----	--	1	--	2	1	6	--	3	--	-----	--	5
Cranes and derricks	1	95	--	-----	1	22	--	22	--	40		6	--	5	--	-----	--	2	--	1	--	-----	--	-----	--	1	--	-----	--	1	--	4
Cars and engines	3	41	1	2	--	11	--	-----	1	6	1	22	--	-----	1	-----	12	125	--	10	--	2	--	-----	--	2	--	2	--	3	1	2
Motor vehicles	--	69	--	-----	--	1	--	1	--	12	--	3	--	52	--	-----	--	6	--	35	--	10	--	3	2	56	--	13	3	74	3	57
Other vehicles	--	1	--	-----	--	-----	--	-----	--	-----	--	1	--	-----	--	-----	--	-----	--	2	--	1	--	-----	--	5	--	2	1	12	--	9
Hand trucks	--	37	--	3	--	7	--	8	--	19	--	-----	--	-----	--	-----	--	11	--	4	--	-----	--	1	--	6	--	6	--	1	--	8
Water and air craft	--	1	--	-----	--	1	--	-----	--	-----	--	-----	--	-----	--	-----	--	1	--	2	--	-----	--	-----	--	-----	--	-----	--	-----	--	1
Handling objects—by hand	--	532	--	12	--	94	--	124	--	231	--	50	--	21	--	11	--	55	--	27	1	29	--	25	--	124	--	35	--	26	--	91
Hand tools	--	218	--	5	--	36	--	33	--	76	--	37	--	31	--	3	--	26	--	14	--	24	--	16	--	55	--	5	1	24	--	29
Electricity	--	17	--	1	--	5	--	4	--	6	--	1	--	-----	--	-----	1	-----	--	4	1	12	--	-----	--	2	--	-----	--	1	--	3
Explosive substances	1	15	--	-----	--	1	--	2	--	7	1	-----	--	5	--	-----	--	1	--	-----	--	1	--	1	--	4	--	1	--	7	1	7
Hot and corrosive substances	1	149	--	13	--	26	--	52	1	38	--	12	--	8	--	1	--	3	--	2	--	3	--	15	--	8	--	2	--	12	--	19
Falling objects	1	185	--	9	--	57	1	38	--	69	--	10	--	2	--	3	--	14	--	5	--	16	--	2	--	23	--	3	1	12	--	27
Falls of persons	1	187	--	6	1	40	--	19	--	77	--	33	--	12	--	8	--	54	--	26	--	26	--	23	1	116	1	21	--	70	1	73
Stepping upon or striking against objects	--	114	--	2	--	16	--	20	--	52	--	13	--	11	--	3	--	14	--	13	--	12	--	6	--	47	--	10	--	16	--	19
Miscellaneous	--	52	--	4	--	5	--	12	--	15	--	10	--	6	--	2	--	22	--	4	--	6	--	-----	--	25	--	3	2	31	1	31

*F=Fatal. N. F.=Non fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	163	11,975	12,138
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,161	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*309*	*23,887*	*24,196*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	163	14,332	14,495	148	12,539	12,687
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*	*457*	*36,426*	*36,883*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*	*596*	*47,354*	*47,950*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042			
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*			
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627			
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*			
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724			
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*			
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*			
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,556*	*120,420*	*121,976*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	152	11,619	11,771			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: ..... Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building,
Bureau of Bedding and Upholstery,
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Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building.
State Workmen's Insurance Fund,
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BRANCH OFFICES

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529 Hamilton Street.
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304 Colonial Building.

Altoona: ..... Cooperative State Employment Office,
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Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building

Dubois: ..... Bureau of Rehabilitation,
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1026 French Street.

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413 Franklin Trust Building.

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306 Coulter Building.
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608 First National Bank Building.

Harrisburg: ..... State Employment Office,
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1713 Hazleton National Bank Building.

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427 Swank Building.
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219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: ..... Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: ..... Cooperative State Employment Office,
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214 Vesper Street.

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Philadelphia: ..... State Employment Office (Main Office),
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1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhatten Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: ..... Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
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State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: ..... Bureau of Rehabilitation,
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1 Ulmer Building.
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116 Adams Avenue.
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917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.

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INJURED CHILDREN EXCLUDED FROM THE BENEFITS OF WORKMEN'S COMPENSATION

By Beatrice McConnell

Assistant Director, Bureau of Women and Children

There were 4,186 industrial accidents to minors under 18 years of age reported to the Department of Labor and Industry in 1927. These reports are made in accordance with the provisions of the Workmen's Compensation Act which requires the reporting of all industrial accidents where the injury has caused an absence from work of two days or more. Special investigations of 515, or 12 per cent, of these accidents were made by the Bureau of Inspection because some type of illegal employment was indicated on the accident report. In 258, or 50 per cent, of the cases investigated the minors were found to be employed in violation of the Child Labor Law. These 258 accidents to minors illegally employed constitute six per cent of all accidents reported for minors under 18 years of age in 1927.

The Compensation Status of Illegally Employed Children

Since children injured in industrial accidents may be excluded from the benefits of Workmen's Compensation if they are employed in violation of the Child Labor Law[1] a special effort was made to learn the disposition of the 258 cases where employment had been found to be illegal.

Ninety-seven of the 258 cases were non-compensable,—cases where the loss of time due to the accident was less than 10 days. In the remaining 161 cases the injury resulted in more than a 10-day loss of time from the job. These accidents, had employment been legal, automatically would have come under the Workmen's Compensation Act.

The compensation status of the 161 cases where the loss of time exceeded 10 days is as follows:

Status	Number	Per cent
Compensation paid	146	90.6
Compensation refused	14	8.7
Cases pending	1	.7
Total	161	100.0

In 90 per cent of the cases where the accidents occurred to minors

[1] Supreme Court Decision—267 Pennsylvania 504

employed in violation of the Child Labor Law the insurance companies assumed the responsibility for compensation payments and medical expenses even though by law they were not required to do so. It seemed that these companies preferred to give this service to their assured rather than to raise the question of illegal employment and shift the responsibility on to the employers themselves. In 14 cases, however, compensation was refused. Nine of these cases were refused by six private companies and four by the State Workmen's Insurance Fund. In one case compensation was offered by the insurance company and rejected by the injured minor. There seemed to be no connection between the type of illegal employment and the decision of the insurance companies to pay or to refuse to pay compensation benefits. Practically all types of violations of the Child Labor Law figured in the cases where compensation was paid, as well as where it was refused. Nor did the extent of disability appear to be the deciding factor where compensation was refused. Compensation was paid in 29 permanent disability cases where the injury was quite as serious as in the four where compensation was refused. In fact every insurance company that refused to pay compensation in these cases had in this same year paid compensation in other possibly less evident cases of illegal employment.

The Refused Compensation Cases

The 14 children refused compensation on the basis of illegal employment were boys, and all but four were under 16 years of age.

Age	Number
14 years	5
15 years	5
16 years	3
17 years	1
Total	14

The injuries received by these minors resulted in temporary disability in 10 cases, and in permanent disability in four cases. One 14 year-old boy had his right hand amputated at the wrist and another lost his right arm at the elbow. The other two permanent disabilities while less serious involved the loss of two fingers in one case and one finger in the other.

The Nature of Settlement

The exclusion of illegally employed children from the benefits of the Workmen's Compensation Act does not necessarily mean that the injured minors receive no recompense for lost time and medical

expenses, neither does it mean that these minors collect damages greatly in excess of the amount which would have been received through compensation. Although seven of the 14 children who were refused compensation received payments approximating or slightly exceeding the amount that would have been due through compensation, five received only their medical expenses and two nothing at all.

The information regarding these 14 refused compensation cases was obtained from the records of the Bureau of Inspection and from personal interviews with the families of the injured minors made by a representative of the Bureau of Women and Children. The following are the case histories arranged according to the nature of settlement made and the extent of disability.

Injured Minors Receiving More Than Under Workmen's Compensation

Temporary Disability

1. A 15-year-old boy was employed without an employment certificate at a prohibited wood-working machine. His right hand was drawn into the machine and two fingers severely cut and lacerated. The nail of one finger was permanently injured but amputation was not necessary. It was six weeks before he was able to return to work, and compensation was refused. The employer was a "friend of the family in the old country" and paid the boy's wages for the entire time he was away from his work. The doctor's bills, however, were paid by the boy. He is still working for the same employer.

2. A 14-year-old boy operating a punch press had the first and second fingers of his right hand caught between the dies crushing and lacerating them severely. Compensation was refused because the employment of a minor under 18 on a punch press is prohibited. The boy lost two weeks time and the employer paid the medical expenses and gave the boy $14.00. He went back to work for the same employer but at another job. In the fall he returned to school.

3. A 17-year-old boy employed in a mattress factory was oiling a machine in motion. His right hand was caught in the belt and one of his fingers crushed. The boy lost about two weeks time on account of his injury and the insurance company refused compensation because oiling machinery in motion is a prohibited occupation for minors under 18. A settlement was agreed upon by the boy's father and the employer, and the employer paid the boy $30.00 for lost time and medical service, a sum somewhat in excess of the amount the boy would have received had the case gone through the channels of Workmen's Compensation.

Injured Minors Receiving Approximately the Same Amount as Under Workmen's Compensation

Permanent Disability

1. A 15-year-old boy was operating an electric meat grinder when his right arm was caught and drawn into the machine and crushed. It was necessary to amputate the arm just below the elbow and the boy was disabled for about eight weeks. Compensation was refused by the insurance company because the boy was operating an unguarded power-driven meat grinder, a prohibited occupation for a minor under 16. The hospital bill of $180.00 was paid by the employer who offered the boy the sum of $800.00 as a final settlement, approximately the amount compensation would have amounted to. The boy's father has so far refused to sign a release on these terms so that the final outcome cannot definitely be stated at this time. The boy did not go back to work, but returned to school as soon as he was able. His parents are planning to have him complete his high school course and prepare himself in some way to earn his living.

Temporary Disability

1. A 15-year-old boy in first year high school desiring to learn the printer's trade secured a job as printer's apprentice during vacation with the understanding that he could go back to school in the fall, and continue at his work after school and on Saturdays. He had worked only three weeks, when one evening as he was standing by the printing press his leg was caught by the arm of the press and drawn into the gears severely crushing and lacerating his knee. The knee cap was torn off and the wound was very slow in healing, the boy being disabled for six months. His employment was legal except that he had no employment certificate and it was on this ground that the insurance company refused to pay compensation. The boy's mother tried to get the employer to make some settlement, but he refused to accept any responsibility and the mother then brought suit for damages and won her case. The employer was compelled to pay the medical expenses and $185.00 to the boy, $60.00 of which went to the lawyer for handling the case. During the boy's absence from work the employer had hired another apprentice and refused to take him back. He returned to high school but as he had lost so much time that he was unable to keep up with his work he left school and secured a job in a tannery. He left this job after a week or so and went to work in a silk mill where is still employed. He is not satisfied with this work and is taking an electrician's

course by correspondence in the hope of preparing himself for a more lucrative job.

2. A 15-year-old boy employed as a driver's helper had his right wrist broken while cranking the truck. He was employed without an employment certificate and at hours in excess of the legal maximum. The insurance company refused compensation and the employer settled with the boy's father for $50.00, the father assuming all responsibility for medical expenses. The boy was disabled for about one month and returned to school after his arm healed.

Injured Minors Receiving a Money Settlement Less Than Under Workmen's Compensation

Permanent Disability

1. A 16-year-old boy employed as a helper in a bakery was greasing the cog wheels of a rounder machine in motion. His right hand was caught in the cogs, amputating the first and second fingers. The injury became infected and the boy was disabled for eight weeks. As oiling machinery in motion is a prohibited occupation, the insurance company refused to pay compensation or medical expenes. The employer then paid the medical expenses of $80.00 and gave the boy $140.00 as compensation for his lost time. The boy returned to work as soon as he was able and has been working steadily ever since.

Injured Minors Receiving Only Medical Expenses

Temporary Disability

1. A 14-year-old boy hired as an errand boy in a meat market was instructed to clean a power meat grinder. His hand was caught in the worm and one finger crushed. The boy was disabled for five weeks and as he had no employment certificate and was working on a machine forbidden to a minor under 16 years of age, the insurance company refused compensation. After considerable discussion the employer agreed to pay the medical expenses with the exception of a $10.00 bill for dressings. The boy received no compensation for his lost time. He is now employed as an errand boy in a drug store.

2. A 16-year-old boy employed without an age certificate was operating a drill press. His hair caught in the spindle tearing it from his scalp and cutting his head. The scalp wound healed in a couple of weeks, but the shock of the accident affected the boy so much that although he returned to work, he was unable to keep a job for the rest of the summer. The boy's injuries were cared for by the plant doctor, but compensation was refused by the insurance

company. He returned to high school in the fall and is planning to complete his course, in which he is learning the trade of electrician.

3. A 14-year-old boy employed as a distributor of newspapers was struck by a passing truck as he was delivering his papers and his right knee was broken. He was in the hospital for eight weeks and walked with a crutch for some time after he was brought home. He says his knee still hurts him at times and he finds it necessary to save it as much as possible. He was employed without an employment certificate and compensation was refused. The employer refused to accept any responsibility for the accident and the medical expenses were finally paid by the automobile insurance company with which the owner of the truck that struck the boy was insured. The boy missed so much time from school that he was not promoted and he left school while still in the seventh grade. He is now employed in a men's furnishing store.

4. A 14-year-old boy hired as a driver's helper fell from the wagon and fractured his arm. He was employed without an employment certificate and was working 10 hours a day. Compensation was refused by the insurance company and the employer agreed to pay the amount of compensation due. This they subsequently failed to do, so the boy received nothing for his lost time, although the doctor's bill was paid by the employer. The boy recovered from his injury and returned to school.

5. A 16-year-old boy employed without an age certificate in an automobile service station opened the doors of the freight elevator to ascertain the location of the elevator, the gate came down striking him in the face fracturing his nose and bruising his head. He was absent from work a little less than two weeks. The compensation insurance company paid the bills for medical service and offered compensation but the boy refused to sign an agreement. He returned to work as soon as he was able and is still working for the same concern. He says he has a good job and likes his work.

Injured Minors Receiving No Redress

Permanent Disability

1. A 14-year-old boy employed in a meat market without an employment certificate was set to grinding meat in a power-driven, unguarded meat grinder. In pushing the meat into the hopper his hand came in contact with the worm gear and was crushed so badly it was necessary for it to be amputated at the wrist. Compensation was refused by the insurance company and the employer refused to accept any responsibility for the accident. Shortly afterwards he sold out his business and left the state making it impossible for a civil suit to be instituted by the injured minor. Hospital and

doctor's bills of $150.00 are still unpaid. An appliance for the boy's arm was purchased by the family with the proceeds from an accident insurance policy which it carried. The boy has returned to school and hopes to receive some training to fit him to earn his living in spite of his handicapped condition.

2. A 15-year-old boy employed in a pretzel manufacturing establishment was cleaning a dough mixer, an occupation prohibited to a minor under 16 years of age, and his right hand was caught in the machine completely amputating the index finger and injuring the middle finger so severely that he has no use of it. The boy was out of work two months and had a doctor's bill of $60.00. Compensation was refused by the insurance company and the doctor is yet unpaid. This case has been reopened, the family having appealed the case to the Workmen's Compensation Board, but a decision has not yet been given. The boy returned to work as a packer in the same factory after he had recovered from his injury, but was discharged soon after. He was in the seventh grade of school when he quit to go to work, and is planning to return to school this fall if he does not secure another job.

Conclusion

Illegally employed minors have not in practice embraced the opportunity offered by the Supreme Court decision to secure through civil suit more damages than would be available if their injuries had occurred in the course of legal employment. The Bureau of Women and Children made this finding in a study of the accidents to illegally employed children occurring in the last 6 months of 1926.[2] The same conclusion is reached in this study of accidents for the year 1927.

In 1927, of the 161 minors under 18 years of age injured while illegally employed, 146 received only the amount of compensation which would have been available had their employment been legal. Fourteen were refused compensation; in one case by the action of the family, but in 13 cases on the decision of the insurance companies. Of these 14 refused cases only three received more money than would have been their due under Workmen's Compensation. All three cases were temporary disabilities and the settlements came through informal agreements between the employer and the family and not following a civil suit. In four cases the amount obtained by the minors approximated what would have been received under compensation, in only one instance following a civil suit on the part of the family. Five cases of temporary disability meant the receiving of

[2]The Illegally Employed Child Injured in Industry, "Labor and Industry," July 1926.

medical expenses but the full loss of wages during the time lost because of disability. Two minors incurring permanent disabilities, in one case amounting to the loss of two fingers and in the other to the loss of the right hand, received no form of redress.

PROTECTION OF HANDLERS OF RADIOACTIVE MATERIALS

By Elizabeth B. Bricker

Chief, Hygiene and Sanitation Section

Department of Labor and Industry

Something over three years ago the newspapers carried shocking stories of the illnesses and deaths of several women who had been working in a plant in New Jersey painting watch and clock dials with a luminous material. Within the past few months additional publicity was given this subject through legal action brought against the same company by certain other workers whose health had been impaired, supposedly by reason of their work with this compound.

This matter was adjusted by the company making a substantial financial settlement with the disabled women.

In all cases these workers had been employed a long time at this process before signs of injury appeared. Some of them had been working in other industries and had not been handling radioactive material for several years when their symptoms first developed. The discovery very frequently followed some dental procedure; healing at the site of injury being delayed, or the lesion healing temporarily and a breaking down of the tissue soon following.

In the early cases the association between occupation and injury was not recognized positively. Had this not been the case, additional observations might have fixed more definitely the cause of the injury.

Some of the particles of radioactive material taken into the body are eliminated at once, some are eliminated gradually after the handling of the material has ceased, but in some cases the material, or a certain proportion of it is stored in the body and continues to give off destructive emanations indefinitely.

So far, it is not known what influences the deposition of the material nor how it can be eliminated. Apparently the only means of protecting the workers from the long-continued accumulation of increasing amounts is, as soon as the condition is recognized, to remove them from exposure.

The presence of this material in the body or in the air breathed out from the lungs may be determined by means of the electroscope. In addition to the general physical examination given these workers, X-ray examinations to determine any changes in the bones, and also complete blood counts should be made. A decrease of the number of white cells in the blood below 6000 per cubic millimeter is a sign which should be regarded with suspicion.

In fact, a deviation from the normal found by any one of these methods should call for immediate removal of the individual from exposure to radioactive material and for the establishment of a continued close observation of that individual's physical condition. This is particularly the case when the electroscope shows the presence of radioactive materials in the body, as this is usually the first and the most diagnostic evidence of possible danger.

Under all circumstances, where radioactive, luminous materials are used, as in dial painting, the work should be done under strict precautions. The powdered material should be handled under a hood connected with an exhaust; the painting itself should be done only where good ventilation can be obtained and maintained; and, under no circumstances should the use of a brush be permitted for painting purposes, a glass or steel pen being used instead.

Dial painters, or others handling this material, should be given a thorough physical examination, as just outlined, every six months. Other persons having a greater exposure should be examined once a month.

Employers should make every effort to see that their workers are given the most complete protection known at the time.

On several occasions recently, the Department of Labor and Industry has been called upon to give advice concerning the necessity for, and the type of examination to be given workers handling this substance.

All persons interested in, or affected by this problem are urged to take advantage of this service of the Department, or to consult directly persons equipped to make adequate physical examinations of the workers handling these luminous compounds.

ACCIDENT REDUCTION*

The New Jersey Zinc Company of Pennsylvania, located at Palmerton, has reduced the number of lost-time accidents 60 per cent since 1922. These figures are based on an average of 2,400 employes.

American Car and Foundry Company, Berwick Plant—Not a single lost-time accident in 51 working days, daily average of 2,866 employes, equivalent to 1,211,914 man-hours worked. (Still going). Record of this plant in 1913 when safety campaign started, 17 plus lost-time accidents per 1,000 employes. In 1927, monthly average of 1.25 lost time accidents per 1,000 employes, a reduction of 92.6 per cent.

Star Throwing Company, Shamokin—Two lost-time accidents in 1927; number of working days, 300; number of employes, 65.

Dexter No. 4 Plant, Penn Dixie Cement Company, Nazareth—Forty men, 30 months no lost-time accidents.

Hewesco Silk Company, Shamokin—One lost-time accident in 1927; working days, 275; number of employes, 85.

The Standard Steel Works at Burnham, which has accomplished remarkable records in safety since 1924, passed the 100 days no-accident mark on May 4th with 1917 employes and was still going. The high spot is the hazardous tire mill with an average of 98 employes, which on April 25th celebrated the completion of its third year without a lost-time accident. Fred J. Graham is safety director of the plant.

Susquehanna Silk Mills, Lock Haven—Two lost-time accidents in 1927; number of working days, 301; number of employes, 217.

United Silk Company, Northumberland—No lost-time accidents in 1927; number of working days, 287; number of employes, 50.

The Vulcan Iron Works, South Wilkes-Barre Plant employed an average of 300 men for the year 1927 with 36 lost-time accidents for the year. These figures show accidents reduced to 33-1/3 per cent of 1920 figures.

Alpha Portland Cement Company, Martins Creek—One hundred thirty-eight men, no lost-time accidents in 1927.

Wyoming Valley Lace Mills, Wilkes-Barre—This company reports 295 male and female employes and has not had one lost-time accident in plant since June, 1924.

The New Castle Works of the Carnegie Steel Company had a lost-time accident on April 26, 1928, this being the first since February 2nd, a total of 83 days, a new record for this plant. In the four months from January 1st to May 1st the plant had only four lost-time accidents, another new record. These records were made with 1,500 employes.

Duplan Silk Corporation, Hazleton—Safety organization effected in 1917, 2,000 employes, accidents reduced 60 per cent since the inception of the safety organization. Many departments had no accidents at all.

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*This will be a monthly feature in "Labor and Industry." Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication to Director, Bureau of Inspection, Department of Labor and Industry, or to the Divisional Supervisor of the Bureau.

RECENT DECISIONS OF THE WORKMEN'S COMPENSATION BOARD

Olinsky *v.* Lehigh Valley Coal Company

Loss of member combined with other disabling injuries—If in the same accident an employe receives injuries compensable under both sections 306 (b) and 306 (c), the latter clause governs and the former does not take effect unless the incapacity extends beyond the period fixed or determined under 306 (c).

Superior Court of Pennsylvania. Linn, J., Filed May 3, 1928

In February 1923, in the course of employment, claimant's left leg was broken and his right so injured as to require amputation of the foot. Total disability (section 306-a of the compensation act) resulting from the injury ceased 8 months after the tenth day.

For disability resulting from the loss of his right foot he was entitled to compensation for 150 weeks under 306-c. He claimed payment for 8 months total disability under 306-a, and for 150 weeks additional disability under 306-c at the $12 weekly maximum and has judgment for the claim.

Under 306-d compensation is payable after the tenth day except as to clause 306-e not now involved.

Claimant construes the statute as providing compensation according to the severity of the injuries. The purpose of the act was to displace the common law liability for wrong and to substitute a system of redress for industrial accident for which the common law furnished inadequate relief or none at all. Compensation is provided according to a classification of disability stated in the act, and not on the basis of the severity of injury.

Appellant contends that in effect the 150 weeks disability period provided by 306-c for the loss of a foot includes the 8 month period of disability under 306-a; that the act contains no provision for adding a claim payable for total disability under 306-a to a disability claim payable under 306-c.

Recent decisions support this view. In Baffi *v.* L. V. Coal Co., 87 Pa. Super. Ct. 579, a claimant who had lost both eyes and had also sustained disfigurement, sought compensation. The loss of both eyes was held to constitute total disability under 306-a and to be compensable accordingly, but no additional sum was allowed for the disfigurement. It was said, "He could not get anything more from

any cause arising out of the same accident. He cannot be more than totally disabled, and when the fact appears that total disability has been compensated for, he cannot tack on another disability." On the other hand, as appeared in Sustar *v.* Penn etc. Co., 85 Pa. Super Ct. 531 and 285 Pa. 395, a claim for the loss of one eye may be added to a claim for disfigurement, because both arise under 306-c which specifically provides for aggregation as follows: "For the loss of any two or more of such members not constituting total disability, sixty percentum of wages during the aggregate of the periods specified for each." In the opinion we said: "If in the same accident an employe received injuries compensable under both 306-b and 306-c, the latter clause governs and the former does not take effect, unless the incapacity extends beyond the period fixed or determined under 306-c, for the employe has already received compensation for full disability for that period." See Lente *v.* Luci, 275 Pa. 217 at 222; Bauch *v.* Fidler, 277 Pa. 573, Ludington *v.* Coal Co., 90 Pa. Super. Ct. 318, and Marhoffer *v.* Marhoffer, 220 N. Y. 543. As there is no provision in the statute authorizing the addition of the compensation payable under 306-a to that payable under 306-c, we must sustain the appeal.

The order is reversed and the record is remitted with instructions for further proceedings in accordance with this opinion

Bullsak *v.* Lilly Coal Company

Marriage of minor dependent—the marriage of a minor dependent under the age of sixteen does not terminate the right of such minor to compensation.

Opinion by Commissioner Fleitz, Filed May 16, 1928

This case arises on an appeal of defendant from an order of the referee dismissing a petition for review of a compensation agreement. The facts are as follows: Annie Bullsak was the dependent child of Mike Bullsak, deceased, who met a compensable death while employed by defendant company. A compensation agreement was made, under which the defendant has paid compensation to Annie Bullsak as a dependent. Annie Bullsak was born July 14, 1915, and will reach the age of sixteen on July 14, 1931. On January 3, 1928, she was married, and the defendant filed a petition for review of the agreement, contending that by reason of the change of status of Annie Bullsak, that her name should be stricken from the compensation agreement. The referee dismissed the petition, holding that the marriage of a child under the age of sixteen years does not forfeit its right to compensation. The appeal followed. We believe the referee has made a correct disposition of the case. An examination

of the provisions of the Workmen's Compensation Act discloses that the present case is governed by Section 307, Clause 7, which is as follows:

> "Compensation shall be payable under this section to or on account of any child, brother, or sister, only if and while such child, brother or sister is under the age of sixteen ***** Should any dependent of a deceased employe die or remarry, or should the widower become capable of self support, the right of such dependent or widower to compensation under this Section shall cease; Provided, however, that upon the re-marriage of any widow other than a non-resident alien widow, the employer shall pay to such widow the then value of the compensation payable to her during one-third of the period during which compensation then remains payable, etc."

We are unable to find anything in the Act which indicates that the marriage of a dependent child terminates its right to compensation. Specific provisions are made for the termination of compensation paid to dependents upon the happening of certain contingencies, and the contingency in this case is that the dependent child shall have reached the age of sixteen. We are unable to read into the Act anything not placed there by the Legislature, and we believe that under the reasonable interpretation thereof, a dependent child does not lose its right to compensation by reason of marriage. We affirm the referee's findings of fact, conclusions of law, and order dismissing the petition to modify or review the agreement. The appeal is dismissed.

DEPARTMENTAL NOTES

The honorary degree of Doctor of Laws was conferred upon Charles A. Waters, Secretary of Labor and Industry, at the annual commencement exercises of St. Joseph's College, Philadelphia, June 13th. The degree was conferred by Rev. W. T. Tallon, S. J., President of the college. Mr. Waters is an alumnus of St. Joseph's College.

Dr. Elizabeth Bricker, Chief of the Industrial Hygiene and Sanitation Section of the Bureau of Industrial Standards, and Harry D. Immel, Director of the Bureau of Inspection, addressed the York County Medical Society on Thursday, June 7, on occupational diseases and the relation of industrial acidents to health.

Thomas J. Quigley, Chief of the Mines and Quarries Section of the Bureau of Inspection, obtained the cooperation of operators of limestone and trap rock quarries in a no-accident drive for the month of June. The drive coincided with the Portland Cement Association no-accident campaign covering the same period. During the month of May, Mr. Quigley personally arranged and addressed eighteen meetings of quarry owners and their employes representing sixty-five different quarries and cement companies. One of these meeting held in York was attended by over eight hundred persons.

Elizabeth S. Ziegler, statistical assistant in the Bureau of Statistics since April 15, 1925, has resigned to take a position in the Statistical Division of the Service Department of the National Bank of Commerce in New York City, July 15, 1928.

The cooperation of the Department of Labor and Industry with community safety organizations was evidenced by the attendance at the Third Regional Safety Conference for Northwestern Pennsylvania held at Erie, May 21st and 22nd.

The Industrial Board attended in a body, also the Secretary of the Industrial Board; the Director of the Bureau of Inspection; the Supervising Inspector from Pittsburgh; the Supervising Inspector from Meadville with his entire staff of inspectors; and the Secretary of Labor and Industry, Charles A. Waters, who addressed the conference.

More than 500 delegates participated in the conference. The meeting was considered so successful that arrangements are already being made for a fourth conference in 1929.

REVIEW OF INDUSTRIAL STATISTICS

PREPARED BY

The Bureau of Statistics

THE LABOR MARKET

Reports from State Employment offices for May indicate further improvement in the employment situation. The ratio of applicants per 100 jobs open dropped from 213 in April to 199 in May. This is the fifth consecutive month that the ratio of applicants to openings has shown a decrease, and May is the first month in the last twelve that the ratio of applicants per 100 jobs has been under the 200 mark. Unemployment as measured by the ratio of the number of applicants for work to the number of jobs open, as recorded at State Employment offices, has shown nearly a 40 per cent decrease within the last five months.

There were 8,414 applicants for employment registered at State Employment offices during May, of which nearly two-thirds were men. Employers needed only 4,236 workers, or only one-half the number available. The demand for women workers was relatively better than for men. The ratio of applicants to openings for men was 213 to 100 compared with a ratio of 178 to 100 for women. The largest volume of calls for women workers came from the clothing manufacture, hotel and restaurant, and retail trade groups. The opening of summer hotels helped along the demand for women workers in the hotel and restaurant group, and extra help was needed in retail stores on account of increased trade due to May sales. There also was a good demand for women day workers.

Building construction, metal plants, and agriculture were the only groups to show increased demands for male workers. The general expansion of construction activities in May created a good demand for building labor. Business in the metal industries showed some improvement and many plants were recalling furloughed help. Automobile plants, especially those manufacturing auto bodies and parts, showed large increases in employment. Spring ploughing and planting caused some slight demand for farm labor. Unskilled common labor continued about 50 per cent unemployed. The general outlook for the employment of unskilled labor, however, was much brighter than last month.

Positions were secured through State Employment offices by 3,082 persons during May. This is 45 per cent less than the number of positions secured for workers during May, 1927.

EMPLOYMENT, WAGES, AND HOURS WORKED

Reports from 813 manufacturing establishments in May indicate a slight gain in employment over April. The employment index for manufacturing industries shows an 0.3 per cent gain over April. Average weekly earnings of factory workers in May were 4 per cent higher than in April. Total employment for the 813 manufacturing establishments reporting for May, 1928, was 7.4 per cent less than for the same month in 1927.

The total volume of employment in the metal industries during May was 0.2 per cent less than in April. Decreased employment was reported for the blast furnace, rolling mill, forgings, and hardware groups. General employment in the blast furnace industry is approximately 35 per cent below last year's level. Structural iron works show some improvement over April. Total wage payments for this group in May were 11.5 per cent higher than in April. The stove and furnace industry and brass and bronze foundries also showed gains in employment and earnings.

Continued improvement was shown for the automobile industry. Employment in firms manufacturing automobile bodies and parts is 12 per cent higher than last year. Employment in railroad car repair shops continued to fall off slightly, although total employment in car shops in May was not far below last year's total. New locomotive and car building, however, shows a 26 per cent decline in employment compared with last year.

Seasonal reductions in employment were shown for some of the textile industries. Ten of the 14 cotton goods mills reporting in May show decreased employment compared with April. One large mill in the eastern section of the state dropped 240 workers during May. The 24 per cent increase in earnings over April shown for workers in the woolens and worsteds industry is mostly due to the comparison of payrolls for a full week in May with payrolls in April that were reduced by the observance of Easter holidays. Most shops in the clothing industry were passing through their in-between-seasons period, and business generally was dull. One men's clothing factory closed down completely during May.

Candy manufacturing showed an unexpected increase over April. Considering that candy production usually declines sharply following the high peak of Easter business, the increase in May seems unusual. Probably the continued cool weather has prolonged the season of high confectionery consumption. The ice cream industry shows a 10 per cent gain in employment over April.

General increased employment is shown for the cigar and tobacco industry. Most of the large factories are working 5 full days a

week. A few of the small independently operated cigar factories report overproduction and dull business.

Increased employment was reported by nearly all building supplies' manufacturers. Cement plants report large increases in production. The building supplies group had been showing a small volume of business in the earlier months of the year. Construction employment also expanded seasonally in May and showed a 19 per cent gain over April.

General employment conditions in May were much more favorable than at any time during the last 12 months. Most industry groups that were unaffected by seasonal influences during May showed an upward swing in employment.

Schedules of working hours also are increasing. The total of hours worked during the first half of May as reported by 480 concerns shows a 4 per cent increase over April. Business generally seemed much improved over April.

INDUSTRIAL ACCIDENTS AND COMPENSATION COSTS

The total of industrial accidents, after reaching the lowest mark in April in more than five years, climbed upward in May and showed a 21 per cent increase over April. There were 362 fatal accidents and 13,041 non-fatal accidents reported to the Bureau of Workmen's Compensation during the month of May. The total of 362 fatal accidents reported during the month was the highest fatal accident total reported during any month in the twelve years and five months that the Workmen's Compensation law has been in effect. The exceptionally large fatal total for May is due to the inclusion of reports of 184 deaths which occurred in the bituminous mine disaster at the mine of the Pickands Mather and Company in Greene County on May 19, 1928. This total of 184 deaths includes all deaths occurring in that explosion which were reported to the Department up to and including May 31. Final reports, after all bodies have been recovered and identified, will probably add 12 or 13 more to this total. This is the first serious mine disaster since the explosion at the Clymer mine of the Clearfied Bituminous Coal Company on August 26, 1926, in which 44 lives were lost.

The average age of the 184 men killed in the Mather accident was 35 years. Seven were under 21 years; 56 were between 21 and 30 years old; 69 were between 31 and 40 years; 44 were between 41 and 50; and 4 men were over 50 years old. The ages of 4 men were not reported.

Fifty-one of the men were single and left no dependents who are entitled to compensation. One hundred and twenty-seven were mar-

ried and in addition to their widows were survived by 228 children under 16 years of age. Two were widowers and were survived by one dependent child each. The marital status of 4 of the men was not known at the time the reports were submitted. Of the 127 men who were married, 52 died leaving no dependent children; 16 left widows and one child each; 22 left widows and 2 children each; 10 left widows and 3 children each; 10 left widows and 4 children each; 9 left widows and 5 children each; 5 left widows and 6 children each; 2 left widows and 7 children each; and one was survived by a widow and 9 dependent children. This is an average of 3 dependent children for each of the 75 families with children. The fact that only 2 children were entirely orphaned in this accident is a particularly fortunate circumstance. It is roughly estimated that the total compensation cost of this accident will be approximately $750,000. This full amount, of course, is not payable at once but is spread over a period of years. Compensation payments in some cases will continue until the youngest dependent child, including posthumous children, has attained the age of 16 years.

Even with the record of these 184 deaths omitted, the fatal accident total for May is the highest for the last six months. Nearly all industry groups show increases in fatalities over April.

The transportation and miscellaneous industry groups were the only two to show decreases in fatal accidents in May compared with April. Accidental deaths in the transportation industry were 6 less than in April, and in the miscellaneous group there was one death less reported. The transportation industry, particularly steam railroads, has been making remarkable reductions in fatal accidents from month to month in 1928. During the first five months in 1928, 62 fatal accidents have been reported from the transportation industry compared with 92 for the same period last year, a 33 per cent reduction. Fatal accidents on steam railroads alone during the same periods dropped from 75 in 1927 to 54 in 1928.

Twenty-four fatal accidents were reported from the construction and contracting industry during May, or double the number reported for April. The seasonal expansion of construction operations partly accounts for this increased number of fatalities. Manufacturing industries reported 33 fatal accidents in May, a gain of 10 over April. Most of this increase occurred in the metal industries. Anthracite coal mines reported 48 fatalities, or 10 more than in April; quarries reported 4 deaths, a gain of 2; stores reported 6, a gain of one; hotels and restaurants reported one death in May and none in April; State and municipal agencies reported 15 fatalities in May compared with 8 for April.

There is no definite cause apparent in the accident reports to

which this sudden and general increase in industrial accidents might be ascribed. Employment reports do not indicate that industrial activities have expanded to a point where a large increase in accidents might be expected. However, it must be remembered that accident totals for the first four months in 1928 have been considerably less than the normal average. Even with the large accident total for May included in the comparison, the accident experience for the first five months in 1928 still shows marked improvement over the accident experience for the corresponding months in 1927. The accident figures for the first five months in 1928 compared with figures for the same months in 1927 are as follows:

Period	Fatal Accidents	Non-fatal Accidents
January—May inclusive, 1927	859	67,492
January—May inclusive, 1928	957[1]	60,395
Increase (+) or decrease (—) in 1928	+98 (11.4%)	—7,097 (10.5%)

[1]Includes the 184 deaths reported from the bituminous mine disaster; with these excluded a 10 per cent decrease is shown.

Agreements for the payment of compensation also were high during May. A total of 7,144 agreements were reported obligating the payment of $1,471,427, distributed as follows:

170 fatal cases	$554,152
304 permanent disability cases	364,691
6,670 temporary disability cases	562,584

Compensation awards for the first five months in 1928 total $6,003,183, or an increase of nearly $1,000,000 over the total for the corresponding period in 1927, a gain of 20 per cent. This gain is accounted for by the increased schedule of compensation rates which became effective January 1, 1928. This increase conforms very closely to the estimate made by the Department at the time the new schedule of rates went into effect.

Permanent injury cases for May were somewhat higher than normal. Foot and leg losses show the largest increases. Among the major permanent loses compensated during May were listed 52 eyes, 7 arms, 17 hands, 14 legs, and 23 feet. One case of double hand loss is included in these totals and 3 cases of double eye loss. Awards also were made in 13 cases of miscellaneous permanent total disability.

The severity of accidental injuries to workers in 1928 is higher

than that for 1927. The average duration of disability for the temporary disability cases compensated in May was 50 days compared with an average time loss of 48 days for all temporary disability cases compensated during the first five months in 1928, and compared with an average of 45 days for all temporary disabilities compensated during the year 1927.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICE FOR THE MONTH OF MAY, 1928

Industries	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	8,414	5,360	3,054	4,236	2,517	1,719	4,721	3,010	1,711	3,082	1,922	1,160
Total: Industrial group (skilled)	2,558	1,856	702	1,085	778	307	1,274	908	366	593	442	151
Building and construction	465	465	----------	235	235	----------	247	247	----------	158	158	----------
Shipbuilding	5	5	----------	1	1	----------	2	2	----------	1	1	----------
Chemicals and allied products	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Clay, glass and stone products	6	6	----------	2	2	----------	2	2	----------	2	2	----------
Clothing	16	----------	16	34	1	33	12	----------	12	8	----------	8
Textiles	51	43	8	8	----------	8	4	2	2	2	----------	2
Food and kindred products	16	9	7	3	----------	3	3	----------	3	3	----------	3
Leather, rubber and composition	6	6	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Lumber, woodwork and furniture	22	22	----------	10	10	----------	9	9	----------	6	6	----------
Paper and printing	13	11	2	5	4	1	8	7	1	5	4	1
Metals and metal products	559	559	----------	350	350	----------	324	324	----------	152	152	----------
Mines and quarries	1	1	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
Transportation and public utilities	225	211	14	58	56	2	87	83	4	47	45	2
Hotel and restaurant	162	53	109	94	26	68	87	24	63	43	15	28
Wholesale and retail trade	187	70	117	87	24	63	104	42	62	51	10	41
Miscellaneous	824	395	429	198	69	129	385	166	219	115	49	66
Total: Other groups	5,856	3,504	2,352	3,151	1,739	1,412	3,447	2,102	1,345	2,489	1,480	1,009
Professional and technical	416	344	72	142	116	26	220	185	35	66	55	11
Agriculture	24	24	----------	20	20	----------	20	20	----------	17	17	----------
Semi-skilled	1,780	580	1,200	895	227	668	861	277	584	468	172	296
Unskilled	2,365	2,233	132	1,114	1,062	52	1,351	1,292	59	976	935	41
Casual and day workers,	1,271	323	948	980	314	666	995	328	667	962	301	661
April, 1928	7,531	4,759	2,772	3,538	2,185	1,353	3,782	2,313	1,469	2,664	1,739	925
March, 1928	10,463	6,139	4,324	3,811	2,302	1,509	4,292	2,507	1,785	2,671	1,655	1,016
February, 1928	8,754	5,627	3,127	2,961	1,989	972	3,214	2,143	1,071	2,193	1,528	665
May, 1927	11,955	7,991	3,964	6,697	4,551	2,086	6,746	4,788	1,958	5,654	4,124	1,530
May, 1926	12,340	8,764	3,576	9,417	6,449	2,968	9,205	6,851	2,444	7,968	5,876	2,092
May, 1925	11,463	8,170	3,293	7,195	5,515	1,680	7,579	5,891	1,688	6,464	5,107	1,357

[1]The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

GROUP AND INDUSTRY	No. of plants reporting	EMPLOYMENT: No. of wage earners week ended May 15, 1928	EMPLOYMENT: Index numbers 1923–1925=100: May 1928	EMPLOYMENT: Compared with April 1928	EMPLOYMENT: Compared with May 1927	PAYROLLS: Total weekly payroll week ended May 15, 1928	PAYROLLS: Index numbers 1923–1925=100: May 1928	PAYROLLS: Compared with April 1928	PAYROLLS: Compared with May 1927	AVERAGE WEEKLY EARNINGS—week ended May 15, 1928	AVERAGE WEEKLY EARNINGS—week ended April 15, 1928
ALL INDUSTRIES: (51)	813	260,805	86.9	+ 0.3	— 7.4	$6,787,670	89.8	+ 4.3	— 7.6	$26.03	$25.05
Metal products:	236	101,041	82.3	— 0.2	— 8.2	2,853,471	87.1	+ 3.1	— 6.1	28.24	27.36
Blast furnaces	9	2,023	46.3	— 6.8	—35.4	60,029	49.6	— 2.0	—35.1	29.67	28.18
Steel works and rolling mills	44	54,336	78.7	— 0.8	—10.4	1,566,385	83.4	+ 2.7	— 7.4	28.83	27.86
Iron and steel forgings	10	1,759	81.7	— 4.6	— 8.9	45,611	87.4	— 9.1	—11.5	25.93	27.47
Structural iron work	9	3,742	96.1	+ 1.7	+ 0.2	106,983	100.1	+11.5	+ 3.2	28.59	26.10
Steam and hot water heating appliances	17	4,496	93.9	0.0	+ 2.3	136,113	104.6	+ 7.2	+ 5.9	30.27	28.22
Stoves and furnaces	9	950	79.9	+ 4.4	—11.8	24,631	72.5	+ 2.3	—22.2	25.93	26.45
Foundries	40	7,621	83.8	+ 1.7	— 6.9	215,815	87.7	+ 8.5	— 5.9	28.32	26.57
Machinery and parts	40	9,272	100.8	+ 0.1	— 0.3	283,348	108.4	+ 2.0	+ 1.8	30.56	29.99
Electrical apparatus	17	6,202	92.0	+ 0.2	+ 0.4	157,337	102.8	+ 6.6	+ 9.4	25.37	23.87
Engines and pumps	10	3,320	89.9	+ 0.6	— 6.3	90,851	91.2	+ 0.4	— 8.8	27.36	27.38
Hardware and tools	20	6,356	81.9	— 1.4	—11.0	142,206	79.3	— 5.6	—15.6	22.37	23.44
Brass and bronze products	11	964	88.1	+14.6	+ 8.2	24,162	83.2	+ 9.6	— 1.3	25.06	26.19
Transportation equipment:	40	29,425	71.3	— 2.7	—21.0	852,499	71.0	+ 1.7	—21.6	28.97	27.67
Automobiles	6	4,700	92.2	+ 1.4	— 9.9	161,248	109.6	+ 5.4	— 0.1	34.31	33.04
Automobile bodies and parts	11	6,804	81.1	+ 2.0	+11.9	215,344	79.3	+ 5.7	+14.4	31.65	30.53
Locomotives and cars	13	12,209	60.1	— 6.1	—26.4	316,209	53.3	— 3.1	—29.4	25.69	24.80
Railroad repair shops	6	3,366	83.5	— 3.7	— 4.1	93,955	88.0	+ 6.3	— 1.5	27.91	25.30
Shipbuilding	4	2,246	42.9	—4.5	—56.1	65,743	43.2	— 2.0	—53.9	29.27	28.52
Textile products:	167	54,216	95.4	+ 0.2	— 5.2	1,168,410	99.6	+ 4.6	— 7.5	21.55	20.67
Cotton goods	14	3,437	78.6	— 7.9	—17.3	77,030	75.8	+0.8	—18.9	22.41	20.45
Woolens and worsteds	16	5,986	84.1	+ 3.3	— 3.2	125,328	83.3	+24.0	— 4.0	20.94	17.43
Silk goods	40	16,337	96.3	+ 3.7	— 6.0	300,846	96.7	— 0.9	— 6.9	18.42	19.32
Textile dyeing and finishing	9	1,876	117.6	— 5.2	— 4.9	45,404	119.4	— 4.4	— 7.9	24.20	24.01
Carpets and rugs	10	2,794	87.5	+ 4.5	—10.1	64,255	79.8	+ 9.8	—20.8	23.00	21.90
Hats	5	4,032	100.8	+ 0.1	— 1.3	95,347	93.4	+ 1.1	— 4.2	23.65	23.42

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Continued)

GROUP AND INDUSTRY	No. of plants reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS—week ended	
		No. of wage earners week ended May 15, 1928	Index numbers 1923–1925=100			Total weekly payroll week ended May 15, 1928	Index numbers 1923–1925=100				
			May 1928	Compared with April 1928	Compared with May 1927		May 1928	Compared with April 1928	Compared with May 1927	May 15, 1928	April 15, 1928
Hosiery	27	11,524	113.5	— 2.8	— 2.8	318,710	140.3	+ 6.4	— 5.7	27.66	25.25
Knit goods, other	15	3,097	87.6	+ 3.9	+10.6	56,672	90.5	+ 7.5	+15.9	18.30	17.67
Men's clothing	11	1,511	78.0	— 8.8	—21.8	29,949	73.2	+ 7.5	—29.5	19.82	16.86
Women's clothing	9	1,271	120.0	+ 1.8	+11.3	19,286	127.4	+4.6	+10.5	15.17	14.77
Shirts and furnishings	11	2,351	90.7	— 0.8	— 3.5	25,583	85.2	— 4.8	— 9.7	15.14	15.76
Foods and tobacco:	103	22,788	96.8	+ 5.1	+ 1.1	471,138	98.3	+12.6	— 0.8	20.67	19.31
Bread and bakery products	30	4,371	105.7	+ 1.1	— 4.5	127,713	102.6	+ 3.8	— 6.9	29.22	28.43
Confectionery	14	4,096	88.8	+ 4.7	+ 4.2	82,738	101.2	+16.9	+ 6.5	20.20	18.11
Ice cream	11	1,393	93.7	+10.5	— 1.9	46,244	105.2	+15.1	+ 1.8	33.20	31.87
Meat packing	14	1,948	89.7	— 0.7	— 4.0	54,784	86.0	+ 2.7	—10.3	28.12	27.23
Cigars and tobacco	34	10,980	99.7	+ 7.4	+ 4.2	159,659	98.0	+21.4	+ 3.5	14.54	12.86
Stone, clay and glass products:	67	18,623	87.6	+ 6.2	— 6.6	526,541	89.2	+15.7	— 8.9	28.27	26.00
Brick, tile and pottery	30	4,726	90.0	+ 4.3	+ 5.0	115,989	89.0	+ 8.0	—10.5	24.54	23.67
Cement	14	6,503	90.7	+12.3	—13.4	209,679	100.6	+26.7	—12.0	32.24	28.60
Glass	23	7,394	86.9	+ 2.8	— 6.6	200,873	82.6	+10.1	— 4.4	27.17	25.37
Lumber products:	45	4,268	69.4	— 0.9	—16.9	89,549	68.1	+ 1.6	—17.4	20.98	20.47
Lumber and planing mills	19	1 893	60.6	— 2.3	—21.7	41,736	64.7	— 3.3	—20.1	22.05	22.25
Furniture	20	1,653	70.0	+ 0.1	—17.1	35,452	63.2	+ 5.0	—22.0	21.45	20.46
Wooden boxes	6	722	113.3	+ 1.1	+ 0.7	12,361	120.2	+10.1	+15.7	17.12	15.70
Chemical products:	47	11,034	97.1	+ 1.5	— 7.0	323,813	106.5	+ 1.0	— 4.2	29.35	29.45
Chemicals and drugs	27	1,403	92.9	— 2.2	+ 7 6	38,560	95.7	+ 0.3	+ 7.9	27.48	26.81
Coke	3	2,982	128.8	+ 4.5	+26.6	85,961	131.5	+ 7.2	+30.1	28.83	28.10
Explosives	3	496	114.6	— 2.3	—14.3	12,617	105.5	+ 9.1	—12.4	25.44	22.77
Paints and varnishes	9	1,030	127.3	— 1.4	—10.7	28.360	135.6	+ 9.2	— 4.7	27.53	24.83
Petroleum refining	5	5,123	83.5	+ 1.6	—20.9	158,315	94.7	—3.8	—17.7	30.90	32.57

Leather and rubber products:	51	11,386	93.2	— 1.6	+ 5.4	255,783	100.8	— 0.6	+ 0.8	22.46	22.22
Leather tanning	17	5,894	106.6	— 0.6	+10.4	150,369	110.5	— 3.4	+ 7.2	25.51	24.56
Shoes	23	3,975	88.8	— 2.5	+ 3.6	66,569	83.8	— 6.8	— 5.2	16.73	17.48
Leather products, other	7	583	108.0	+ 0.8	— 3.0	12,475	100.4	+ 2.7	— 4.5	21.40	21.02
Rubber tires and goods	4	934	79.6	— 5.1	—15.1	26,430	92.0	— 5.9	—22.0	28.30	28.51
Paper and printing:	57	8,024	91.6	— 1.0	— 2.6	246,466	107.1	+ 1.8	+ 1.6	30.72	29.86
Paper and wood pulp	13	3,593	82.7	— 1.2	— 6.7	108,987	97.8	+ 4.0	— 1.7	30.33	28.84
Paper boxes and bags	6	662	89.1	+ 0.7	— 2.1	10,133	104.7	+5.8	—2.2	15.31	14.58
Printing and publishing	38	3,769	103.5	— 1.1	+ 1.8	127,346	117.3	— 0.3	+ 5.2	33.79	33.47
Construction and contracting	35	3,846	91.0	+19.1	— 1.9	106,432	81.3	+21.9	— 5.9	27.67	27.56

EMPLOYMENT AND WAGES IN PENNSYLVANIA—(Concluded)

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		May 15 1928	April 15 1928	Per cent change	May 15 1928	April 15 1928
ALL INDUSTRIES: (47)	480	7,386,337	7,101,917	+4.0	$.568	$.572
Metal products:	171	3,517,029	3,428,259	+2.6	.599	.602
Blast furnaces	7	96,839	99,390	—2.6	.565	.565
Steel works and rolling mills	28	1,854,528	1,823,159	+1.7	.623	.625
Iron and steel forgings	8	63,897	66,627	—4.1	.578	.575
Structural iron work	6	79,266	71,571	+10.8	.568	.579
Steam and hot water heating appliances	11	128,472	120,209	+6.9	.612	.611
Foundries	34	332,216	307,324	+8.1	.602	.599
Machinery and parts	31	390,072	384,300	+1.5	.602	.595
Electrical apparatus	14	182,789	166,186	+10.0	.519	.515
Engines and pumps	10	152,216	151,975	+0.2	.597	.595
Hardware and tools	14	205,405	206,694	—0.6	.466	.519
Brass and brone products	8	31,329	30,824	+1.6	.560	.560
Transportation equipment:	30	970,147	932,321	+4.1	.627	.623
Automobiles	6	250,857	240,073	+4.5	.643	.637
Automobile bodies and parts	8	337,702	321,759	+5.0	.609	.605
Locomotives and cars	9	223,712	223,464	+0.1	.604	.602
Railroad repair shops	4	93,840	85,303	+10.0	.675	.638
Shipbuilding	3	64,036	61,722	+3.7	.668	.715
Textile products:	73	1,032,391	984,021	+4.9	.454	.455
Cotton goods	11	69,376	65,407	+6.1	.479	.479
Woolens and worsteds	10	120,018	99,379	+20.8	.461	.460
Silk goods	20	342,007	328,218	+4.2	.417	.423
Textile dyeing and finishing	3	25,501	27,765	—8.2	.475	.487
Carpets and rugs	4	69,321	62,191	+11.5	.520	.543
Hosiery	6	261,718	258,592	+1.2	.524	.522
Knit goods, other	8	52,757	52,385	+0.7	.405	.393
Men's clothing	3	5,635	5,539	+1.7	.290	.295
Women's clothing	4	33,736	33,403	+1.0	.378	.359
Shirts and furnishings	4	52,322	51,142	+2.3	.307	.315

Foods and tobacco:	48	348,973	325,542	+7.2	$.492	$.508
Bread and bakery products	20	111,222	106,690	+4.2	.526	.531
Confectionery	6	102,109	89,099	+14.6	.427	.432
Ice cream	8	49,824	45,032	+10.6	.584	.576
Meat packing	9	56,167	54,082	+3.9	.540	.535
Cigars and tobacco	5	29,651	30,639	—3.2	.341	.480
Stone, clay and glass products:	35	549,806	477,111	+15.2	.564	.563
Brick, tile and pottery	14	130,555	117,051	+11.5	.540	.552
Cement	8	200,366	154,136	+30.0	.538	.539
Glass	13	218,885	205,924	+6.3	.601	.587
Lumber products:	36	106,639	102,942	+3.6	.512	.511
Lumber and planing mills	15	42,249	43,472	—2.8	.548	.540
Furniture	17	53,751	49,382	+8.8	.508	.510
Wooden boxes	4	10,639	10,088	+5.5	.392	.391
Chemical products:	19	301,727	297,548	+1.4	.584	.604
Chemicals and drugs	11	49,524	46,704	+6.0	.487	.496
Paints and varnishes	5	45,870	40,805	+12.4	.546	.546
Petroleum refining	3	206,333	210,039	—1.8	.616	.640
Leather and rubber products:	28	254,048	258,405	—1.7	.476	.486
Leather tanning	9	112,859	111,361	+1.3	.525	.524
Shoes	11	86,539	88,731	—2.5	.351	.369
Leather products, other	4	9,203	9,244	—0.4	.525	.527
Rubber tires and goods	4	45,447	49,069	—7.4	.582	.572
Paper and printing:	40	305,577	295,768	+3.3	.588	.607
Paper and wood pulp	10	186,422	178,755	+4.3	.531	.543
Paper boxes and bags	3	8,645	7,640	+13.2	.344	.323
Printing and publishing	27	110,510	109,373	+1.0	.704	.714
Construction and contracting	28	139,082	109,893	+26.6	.670	.713

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS— week ended	
		No. of wage earners week ended May 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended May 15, 1928	Index numbers 1923-1925=100				
			May 1928	Compared with			May 1928	Compared with		May 15, 1928	April 15, 1928
				April 1928	May 1927			April 1928	May 1927		
Allentown-Bethlehem-Easton	78	21,961	90.6	+3.9	—2.6	$574,903	86.2	+9.5	—5.5	$26.18	$24.99
Altoona	14	2,124	----------	+0.3	----------	49,080	----------	+1.4	----------	23.11	22.86
Erie	11	3,868	98.1	+1.1	—3.6	116,998	99.3	—0.7	—4.3	30.25	31.47
Harrisburg	34	6,492	89.5	+0.3	—2.2	138,221	86.4	+0.6	—7.0	21.29	21.23
Hazleton-Pottsville	21	4,617	99.0	+1.3	—6.1	96,434	91.1	+3.3	—7.5	20.89	20.81
Johnstown	13	941	98.5	—3.1	—21.1	25,797	89.4	+17.8	—17.0	27.41	22.56
Lancaster	30	4,579	104.1	—5.1	—3.5	97,040	93.5	—3.1	—4.3	21.19	20.78
New Castle	11	5,837	107.5	+0.6	—4.4	172,210	104.6	+4.4	—3.7	29.50	28.41
Philadelphia	246	83,376	86.3	—0.1	—10.8	2,252,616	78.4	+5.5	—11.0	27.02	25.54
Pittsburgh	92	61,448	90.6	—1.1	—10.6	1,770,737	84.6	+3.0	—7.8	28.82	27.63
Reading-Lebanon	63	20,166	89.9	+0.3	—3.4	514,061	87.7	+5.3	—5.0	25.49	24.30
Scranton	33	5,322	108.4	—2.6	+1.9	96,120	114.5	+0.8	+3.2	18.06	17.46
Sunbury	27	7,833	61.8	+13.4	—19.3	151,820	58.2	+2.6	—27.2	19.26	21.28
Wilkes-Barre	21	5,869	75.3	+0.7	—7.7	111,625	81.8	+5.7	—10.1	19.02	18.11
Williamsport	22	4,771	72.3	—6.9	—16.3	125,115	78.1	—2.3	+1.5	26.22	25.12
York	43	5,999	89.8	+2.2	—5.5	119,311	89.9	+1.9	—5.5	19.89	19.93

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

ACCIDENT REPORTS RECEIVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	163	135	11,840	12,138
February	146	113	11,799	12,058
March	147	139	12,400	12,686
April	139	100	10,828	11,067
May	362	150	12,891	13,403
June				
Total—1928	957	637	59,758	61,352
1927				
January	170	144	14,353	14,667
February	184	154	12,947	13,285
March	163	150	14,182	14,495
April	169	145	12,548	12,862
May	173	139	12,730	13,042
June	186	124	13,317	13,627
Total—1927	2,064	1,665	157,025	160,754
*Grand Total	29,823	11,901	2,197,450	2,239,174

AGREEMENTS APPROVED

1928	Fatal	Permanent Disability	Temporary Disability	Total
January	168	280	5,288	5,736
February	136	242	5,677	6,055
March	124	331	5,969	6,424
April	150	262	5,580	5,992
May	170	304	6,670	7,144
June				
Total—1928	748	1,419	29,184	31,351
1927				
January	158	250	4,760	5,168
February	174	363	3,994	4,531
March	174	323	4,945	5,442
April	131	231	6,829	7,191
May	128	262	7,839	8,229
June	186	309	7,531	8,026
Total—1927	2,001	3,479	69,406	74,886
*Grand Total	24,504	25,382	824,542	874,428

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	Awarded: Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded
January	$1,100,855	$470,921	$237,571	$392,363
February	[illegible]	[illegible]	290,404	348,095
March	1,191,947	395,997	380,960	414,990
April	1,280,958	515,488	300,326	465,144
May	1,471,427	554,152	364,694	562,584
June	----------	----------	----------	----------
Total—1928	$6,003,183	$2,326,055	$1,503,952	$2,173,176
1927				
January	$995,376	$528,084	$210,370	$256,922
February	1,097,268	504,421	374,696	218,151
March	979,080	510,805	251,823	216,462
April	846,197	393,650	204,166	248,381
May	1,087,132	380,418	268,041	438,673
June	1,408,339	482,313	312,575	613,451
Total—1927	$13,329,557	$5,772,868	$3,226,464	$4,330,225
*Grand total	$140,988,267	$67,752,705	$29,385,285	$43,850,277

1928	Paid: Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
January	$927,633	$297,118	$238,152	$392,363
February	785,422	215,075	222,252	348,095
March	1,039,980	266,751	358,239	414,990
April	1,017,857	287,900	264,813	465,144
May	1,210,948	321,316	337,048	552,584
June	----------	----------	----------	----------
Total—1928	$4,981,840	$1,388,160	$1,420,504	$2,173,176
1927				
January	$867,141	$331,075	$279,144	$256,922
February	746,916	279,197	249,568	218,151
March	851,925	359,705	275,758	216,462
April	785,120	290,396	246,343	248,381
May	916,262	211,002	266,587	438,673
June	1,517,144	331,392	572,301	613,451
Total—1927	$11,697,889	$3,492,763	$3,860,969	$4,330,225
*Grand total	$98,519,416	$30,100,441	$24,568,698	$43,850,277

*Since the inception of the Act—January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	12	$26,774	5	$13,287	15	$30,734	14	$24,898	47	$69,998
February	9	23,580	7	17,577	13	27,687	11	20,210	29	47,755
March	8	20,594	11	29,159	20	43,017	20	38,297	60	107,771
April	8	20,418	5	13,526	24	53,369	10	20,218	43	66,264
May	14	38,339	7	17,759	17	36,373	23	44,423	52	87,934
June										
Total—1928	51	$129,705	35	$91,308	89	$191,130	78	148,046	240	$379,722
1927										
January	10	$25,714	8	$20,640	13	$26,759	8	$14,708	34	$49,923
February	19	46,639	9	23,220	28	54,922	18	31,609	77	116,274
March	11	28,164	8	19,545	15	28,105	10	16,724	46	69,564
April	4	10,240	4	10,143	15	30,905	10	16,763	32	46,858
May	9	23,060	7	17,291	15	29,728	10	18,624	50	77,095
June	8	19,647	3	7,714	19	38,246	22	39,747	47	72,249
Total—1927	128	$319,780	63	$153,843	214	$131,661	159	$282,506	588	$882,420
*Grand total	1,300	$2,875,282	929	$2,070,234	2,936	$5,356,329	1,795	$2,975,593	7,288	$10,144,133

**PERMANENT INJURIES.—(Continued)

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	118	$37,612	93	$16,432	20	$4,248	3	$13,588
February	93	33,824	99	21,192	15	5,629	5	23,000
March	99	38.145	118	25,709	10	4,461	18	73,807
April	119	48,496	85	18,961	9	4,969	13	54,105
May	116	50,440	86	19,268	22	10,120	13	60,035
June								
Total—1928	545	$208,517	481	$101,562	76	$29,427	52	$224,535
1927								
January	100	$34,173	99	$19,164	12	$7,227	3	$12,062
February	154	54,073	97	18,274	7	2.451	6	27,234
March	148	45,955	130	23,366	7	1,671	4	18,729
April	113	33,660	88	14,417	6	3,816	7	32,355
May	95	31,829	95	18,582	7	3,296	10	48,536
June	143	44,786	99	19,408	6	3,588	19	67,190
Total—1927	1,502	$509,006	1,202	$226,122	120	$51,089	89	$370,067
*Grand total	7,308	$2,517,552	6,147	$1,162,004	440	$248,255	489	$2,035,903

*Since the inception of the Act—January 1, 1916. **Multiple losses separated respectively.

NOTE: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING MAY, 1928

Cause	Total of all industries			Construction and Contracting									Coal Mining						Quarrying and mining other than coal mining		
				Building construction			Other construction			Contracting			Anthracite			Bituminous					
*	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F
Total of all causes	362	13,041		8	730		12	290		4	434		48	2,655		216	1,921		4	201	
Working machinery and processes	4	1,036		--	20		--	19		--	13		--	43		2	90				
Boilers and pressure apparatus	--	25		--	1		--	2		--	-----		--	2		--	-----		--	10	
Pumps and prime movers	1	28		--	7		--	-----		--	8		--	2		--	1		--	-----	
Transmission apparatus	1	13		--	-----		--	-----		--	-----		--	2		--	2		--	-----	
Elevators and hoists	7	76		1	6		--	1		--	7		1	14		--	6		--	-----	
Cranes and derricks	6	204		--	12		1	11		1	19		--	3		--	5		1	-----	
Cars and engines	24	1,086		--	-----		--	5		--	3		9	333		9	455		--	9	
Motor vehicles	14	464		--	28		3	15		1	24		--	1		1	2		--	7	
Other vehicles	2	108		--	3		--	1		--	3		--	5		--	3		--	1	
Hand trucks	2	156		--	7		--	8		--	18		--	4		--	3		--	2	
Water and air craft	2	13		--	1		1	-----		1	1		--	-----		--	1		--	-----	
Handling objects—by hand	6	2,839		--	156		--	75		--	104		1	464		--	299		--	1	
Hand tools	1	1,235		--	65		--	29		--	38		--	324		--	190		--	58	
Electricity	5	89		1	2		--	1		--	2		1	21		1	24		--	24	
Explosive substances	195	196		1	3		1	1		--	3		8	85		184	30		--	4	
Hot and corrosive substances	4	289		--	26		--	9		--	5		--	18		--	18		--	4	
Falling objects	51	2,040		--	56		2	29		--	74		23	778		17	577		3	4	
Falls of persons	22	1,714		3	199		4	41		1	61		2	269		1	114			38	
Stepping upon or striking against objects	2	862		--	121		--	32		--	37		2	193		--	56		--	25	
Miscellaneous	12	467		2	17		--	8		--	14		1	94		1	55		--	6	

Cause	Manufacturing																																			
	Total of manufacturing industries			Chemicals and allied products			Clay, glass and stone products			Clothing			Food and kindred products			Leather, rubber and composition goods			Lumber, wood and their products			Paper and paper products and printing and publishing			Textiles		
*	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F
Total of all causes	33	4,396		6	175		2	391		1	156		3	383		1	153		2	309		1	212		--	238	
Working machinery and processes	1	745		--	12		--	36		--	69		--	29		--	28		1	79		--	59		--	68	
Boilers and pressure apparatus	--	12		--	2		--	-----		--	-----		--	-----		--	-----		--	-----		--	-----		--	-----	
Pumps and prime movers	1	12		1	3		--	-----		--	-----		--	-----		--	-----		--	2		--	2		--	-----	
Transmission apparatus	1	9		--	1		--	-----		--	-----		--	-----		--	-----		--	2		1	-----		--	3	
Elevators and hoists	2	27		--	1		--	2		1	2		--	5		--	2		--	1		--	1		--	3	
Cranes and derricks	4	126		--	5		1	4		--	-----		--	2		--	1		--	1		--	1		--	-----	
Cars and engines	--	89		--	2		--	23		--	-----		--	1		--	-----		--	3		--	2		--	-----	
Motor vehicles	3	122		1	6		--	5		--	2		1	26		--	1		--	5		--	8		--	1	
Other vehicles	1	43		--	3		--	1		--	-----		1	25		--	1		--	10		--	1		--	-----	
Hand trucks	2	88		--	2		--	19		--	1		--	7		--	4		--	3		--	5		--	3	
Water and air craft	--	2		--	-----		--	-----		--	-----		--	-----		--	-----		--	-----		--	1		--	-----	
Handling objects—by hand	1	1,124		--	39		--	138		--	30		--	103		--	41		--	72		--	47		--	50	
Hand tools	1	357		--	14		--	24		--	7		--	31		--	9		--	44		--	10		--	12	
Electricity	--	24		--	-----		--	4		--	1		--	-----		--	-----		--	-----		--	-----		--	-----	
Explosive substances	1	22		1	2		--	1		--	-----		--	2		--	-----		--	1		--	-----		--	2	
Hot and corrosive substances	3	244		1	13		--	14		--	2		1	18		--	14		--	1		--	5		--	7	
Falling objects	3	381		--	13		1	41		--	2		--	22		--	10		1	21		--	16		--	23	
Falls of persons	6	563		--	38		--	44		--	24		--	67		1	22		--	40		--	36		--	47	
Stepping upon or striking against objects	--	258		--	14		--	25		--	12		--	23		--	13		--	18		--	12		--	15	
Miscellaneous	3	148		2	5		--	10		--	4		--	22		--	7		--	6		--	6		--	4	

*F = Fatal; N. F. = Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING MAY, 1928—(Concluded)

Cause	Manufacturing—Concluded																																															
	Metals and Metal Products																								Transportation and Public Utilities												Other Industries											
	Total			Blast furnaces and steel works			Rolling mills			Foundries and machine shops			Fabrication			Car repair shops			Automobile service stations			Other			Steam railroads			Other transportation			Public utilities			Hotels and restaurants			Trading: Retail			Trading: Wholesale			State and municipal			Miscellaneous		
	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F	F	N	F
Total of all causes	17	2,332	3	84	6	440	2	484	4	900	2	242	--	182	--	47	5	461	2	152	2	171	1	122	5	561	1	133	15	295	6	569
Working machinery and processes	--	350	--	3	--	56	--	85	--	181	--	15	--	10	--	15	--	1	--	2	--	4	--	11	--	30	--	2	1	7	--	39
Boilers and pressure apparatus	--	10	--	1	--	2	--	3	--	2	--	1	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	2	--	5
Pumps and prime movers	--	5	--	--	--	--	--	1	--	4	--	--	--	--	--	--	--	--	--	--	--	4	--	1	--	1	--	--	--	--	--	2
Transmission apparatus	--	2	--	--	--	--	--	1	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elevators and hoists	1	10	--	1	--	--	--	2	1	5	--	2	--	--	--	--	--	1	--	--	--	2	--	1	1	7	--	1	--	--	1	3
Cranes and derricks	3	112	1	8	2	26	--	32	--	40	--	4	--	2	--	--	--	7	--	--	--	3	--	--	--	2	--	--	--	--	--	7
Cars and engines	--	57	--	5	--	9	--	1	--	10	--	32	--	--	--	1	5	165	1	13	--	2	--	--	--	6	--	--	--	1	--	7
Motor vehicles	1	67	--	--	--	3	--	2	1	8	--	2	--	52	--	1	--	5	1	46	--	20	--	--	1	83	--	14	3	57	1	46
Other vehicles	--	2	--	--	--	--	--	--	--	1	--	1	--	--	--	--	--	--	--	--	--	9	--	--	--	19	--	1	1	10	--	9
Hand trucks	2	43	--	3	--	6	1	7	1	23	--	4	--	--	--	1	--	13	--	3	--	1	--	--	--	3	--	3	--	--	--	5
Water and air craft	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	6	--	--	--	--	--	--	--	--	--	--	--	--
Handling objects—by hand	1	588	1	15	--	123	--	133	--	238	--	60	--	25	--	16	--	93	--	26	--	35	--	29	3	154	--	52	--	38	1	132
Hand tools	1	205	--	5	--	26	--	31	--	66	1	36	--	41	--	1	--	40	--	13	--	22	--	9	--	60	--	8	--	23	--	33
Electricity	--	19	--	--	--	5	--	2	--	10	--	2	--	--	--	--	--	2	--	1	1	6	--	--	--	2	--	--	1	--	--	--
Explosive substances	--	14	--	--	--	1	--	3	--	4	--	1	--	5	--	--	--	2	--	1	--	3	--	2	--	9	--	5	--	22	--	4
Hot and corrosive substances	1	170	--	17	--	28	--	71	1	41	--	4	--	9	--	--	--	3	--	--	--	3	1	15	--	8	--	1	--	7	--	19
Falling objects	1	231	--	11	--	51	1	45	--	102	--	17	--	5	--	2	--	20	--	7	--	6	--	7	--	16	--	7	3	14	--	30
Falls of persons	5	241	1	10	3	58	--	34	--	87	1	37	--	15	--	4	--	56	--	26	1	33	--	36	--	106	--	27	1	56	3	99
Stepping upon or striking against objects	--	122	--	1	--	21	--	22	--	52	--	14	--	12	--	4	--	27	--	4	--	10	--	7	--	43	1	8	--	23	--	37
Miscellaneous	1	83	--	4	1	24	--	9	--	31	--	10	--	5	--	1	--	25	--	4	--	7	--	4	--	12	--	4	5	35	--	32

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	162	11,975	12,137
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*308*	*23,887*	*29,195*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	163	14,332	14,495	147	12,539	12,686
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*	*455*	*36,426*	*36,881*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*	*594*	*47,354*	*47,948*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042	362	13,041	13,403
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*	*956*	*60,395*	*61,351*
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627			
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*			
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724			
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*			
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*			
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,556*	*120,420*	*121,976*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	152	11,619	11,771			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: ..... Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
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Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
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State Workmen's Insurance Fund,
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Y. M. C. A. Building.

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Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhatten Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

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Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: ..... Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
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Baird Building.

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108 North Fifth Street.

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116 Adams Avenue.
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State Workmen's Insurance Fund,
418 Union National Bank Building.

Sunbury: ..... State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: ..... State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: ..... Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: ..... Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: ..... Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.

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CHARLES A. WATERS, *Secretary*

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VOCATIONAL EDUCATION AND THE DEPARTMENT OF LABOR AND INDUSTRY

Address by Charles A. Waters
Secretary, Labor and Industry

At the Pennsylvania State Vocational Conference,
Eagles Mere, Pennsylvania, June 28, 1928

The Department of Labor and Industry and the Department of Public Instruction, of the Commonwealth of Pennsylvania, have what might be termed a mutual interest in vocational education,—the training of pupils of school age and, in some instances, persons of higher ages for definite vocations.

Such training benefits not only the individual pupils, guided into vocations for which they are personally best qualified, but also benefits the Commonwealth as a whole, by the later work of those pupils in the intelligent and scientific development of Pennsylvania's vast natural resources, expansion of its widely varied manufacturing activities, systematic conduct of the consequent commercial relationships and also even the efficient operation of the homes of its workers, through instruction of young women pupils in home economics.

Vocational education has consequently been properly recognized for a number of years in Pennsylvania as a vital part of its public educational structure.

The Commonwealth of Pennsylvania, early became an industrial center through the development of its iron deposits and its coal mines. Even though the source of the iron ores shifted later to the middle west, Pennsylvania's coal and limestone, necessary in iron and steel production, prevented any immediate wholesale removal of its metal industries, which today offer great opportunities to the trained and studious worker.

Vocational education in the public school system is perhaps more important for Pennsylvania than for any other state. There is probably no other Commonwealth that has greater diversity of manufacturing represented among the approximately 25,000 productive establishments within the borders of Pennsylvania. This Commonwealth has probably more separate municipalities of a size to support vocational training than has any other Commonwealth.

The agricultural communities have likewise realized the need for vocational training in the schools. Many persons regard Pennsylvania as entirely an industrial Commonwealth, but its agricultural resources of approximately 200,000 farms engage almost one-tenth of the population and produce crops and animal products to a value not less than $500,000,000 in a single year and offer a great field for pupils trained vocationally for agriculture. Anthracite and bituminous coal, oil, slate,

cement rock, fire clay, and glass sand are among the principal natural resources of Pennsylvania. Its steel production is large and in numbers of instances, Pennsylvania leads in the manufacture of textiles including carpets, hosiery, silks, cotton lace, and similar products. Glass, leather, asbestos products, felt hats, chocolate and cocoa, and many other articles are included in its vast production.

The preëminence of Pennsylvania industrially is not only guaranteed by its natural resources and manufacturing. It has a strategic geographical location. It is the only State in the Union in navigable connection with three of the Nation's water fronts,—the Atlantic Ocean through the Delaware River, the Gulf of Mexico through the Ohio River, and the Great Lakes from Erie.

Those facts merely review superficially some of the basic reasons why Pennsylvania occupies also a preëminent position in vocational education of its school population.

I have said that the Department of Labor and Industry is mutually concerned with the Department of Public Instruction in vocational education. The actual instruction and the early training of the pupils, for vocations in the industrial fabric of Pennsylvania, is definitely the responsibility of the educational department. However, when its pupils pass from the trades and industrial training shops of the public school system into actual employment in the industrial establishments of the State, they are then definitely subject to legislation, rules and regulations as well as helpful service administered by, and extended to them through, the State Department of Labor and Industry.

The Department of Labor and Industry operates for the promotion of safety and health of the workers and for the prosperity of industry in the Commonwealth. Through various bureaus of the Department the laws relating to safety are administered, mainly through regular inspection of the industrial plants. Safety regulations are formulated by the Department for the various processes and operations in industry not covered specifically in detail by the statutes.

The distribution of Workmen's Compensation, to employes injured in the course of their employment and to the dependents of workers killed, is supervised by the Department of Labor and Industry. Free employment offices are operated by the Department for the benefit of employers seeking workers and for workers desiring placement. Through the Rehabilitation Bureau, the staff of which is meeting here as a section of this Conference, every effort is made to return, to suitable remunerative employment, workers permanently disabled and prevented by their disabilities from continuing in the work they formerly performed. In many of those cases, training courses are necessary for the disabled persons, and the coöperation of the vocational school authorities of the Commonwealth has been especially valuable in many instances in the work of that Bureau. Through coöperation of the

vocational authorities in the public schools, many of the younger workers, suffering permanent disabilities, have been trained for various occupational activities and enabled to enter suitable employment in the industries. In this connection, however, it must be admitted that many of the workers severely disabled in Pennsylvania and coming to the attention of the Bureau of Rehabilitation are above the age when they can logically be considered as eligible for entry into vocational classes of the public schools. Unfortunately, in numbers of other cases, especially among those persons injured in the mines, manual dexterity and basic education are lacking, requiring that such disabled persons be returned as soon as possible, after convalescence, to the most suitable employment available in their home communities.

I cannot close without requesting that in the vocational schools of the Commonwealth, every consideration be given toward the instruction of the pupils in the matter of safety:—personal safety for the individual pupil or worker, safety of fellow pupils or fellow workers, and safety against the financial loss that always results from accidents in industrial operations.

It is highly desirable that all machinery in the vocational schools, especially in the trades schools, be guarded in the same manner that such machines must be guarded in industry.

The purpose of vocational training in the school system is to fit younger persons to take their places in occupations for which they are best qualified. The development of vocational skill is, of course, paramount but the pupils should, at the same time, be instructed in such manner that they will be in all respects capable of meeting the exact working conditions they will encounter in industry in addition to possessing the essential skill required for their tasks. I refer particularly to vocational training as applied to the pupils in trades and industries group.

I will not review here the all too great record of personal distress and property loss caused by accidents in the industries in Pennsylvania. You who have industrial experience are aware of the great numbers of accidents, resulting in injuries to workers, occurring in Pennsylvania despite every effort to safeguard machinery and to promote safe practices among the workers.

The greatest results today, for safety in industry, are coming from educational campaigns, continuously conducted, so that every worker may constantly think of safest procedure in his work both for himself and his fellow workers. Such safety education cannot begin too early. I know that attention is being paid to safety in most of the vocational trade schools and I would urge that it be continued. The skill attained by a pupil, in a vocational training course, may be of little benefit to that pupil if, through even a momentary lack of caution or lack of a guard, that pupil, upon entering active work in the industries, sustains

a severe and permanent physical disability. The Rehabilitation group of the Department of Labor and Industry exists and is meeting with you today as a section of this Conference solely because such permanent disabilities do occur to workers to prevent them from continuing in the employments in which they may have developed great skill but which they cannot continue to follow due to physical impairment from accident.

I would urge that all machinery in the vocational schools be equipped with guards in accordance with the standards of the Department of Labor and Industry, not only for the immediate safety of the pupils operating those machines during their training, but also that the pupils may become familiar with the types and standards of guards required by law and regulation of the Department. Those pupils will then be familiar with the exact working conditions they will encounter in connection with machinery and machine tools in industry and in the event that they do not find such standard guards on their machines at their places of employment, they can take action towards seeing that such guards are immediately provided.

It is also a fact that pupils in training in vocational schools may operate, under supervision, certain types of machines, as punch presses, which may not be operated, in industry, by employes under the age of eighteen years. There are other similar restrictions and limitations in the labor laws of Pennsylvania which will prevent operation of certain machines in industry by youths who in vocational training operate such machines under supervision of their instructors. All lathes, planers, shafting, pulleys, belting, gears, and woodworking machinery should be guarded in accordance with the state regulations. In welding operations, chipping or similar work, proper goggles should always be worn by the pupils. I appreciate that these practices are in most cases being met in the vocational schools but I would especially urge that as a part of the training of vocational pupils in trades and industries, the safety regulations of the Department of Labor and Industry on Power Transmission, Woodworking, and Machine Tools be made a definite part of the curriculum.

However, experience has unfortunately proved that accidents, resulting in injuries to workers, may occur in plants fully equipped with guards, and for that reason I would urge that, in the vocational training for the trades, special emphasis be placed upon the general educational work for safety.

Vocational instructors in trades and industries desiring copies of the safety regulations of the Department may obtain them by writing a letter to the Department of Labor and Industry in Harrisburg or by application at the nearest office of the Department's supervising inspector. Those offices are located at Philadelphia, Pittsburgh, Lancaster, Meadville, Johnstown, Williamsport, Scranton, and Hazleton.

STATE WORKMEN'S INSURANCE FUND

By George W. Van Wagner
Department of Labor and Industry

The State Fund, on December 31, 1928, terminated twelve years of very successful service to the employers and injured employes of Pennsylvania. The State Fund was established January 1, 1916, by Act of General Assembly for the purpose of furnishing compensation insurance at net cost. The growth of the State Fund during these twelve years shows beyond contradiction that this duty has been fulfilled to the satisfaction of many thousands of policyholders. During these twelve years of the State Fund's existence, policyholders have paid into the Fund $29,847,966. Out of this amount $3,708,594 has been returned to policyholders as dividends, $500,000 has been returned to the State Treasury, which amount is the total of two appropriations made to the Fund by the State of Pennsylvania at its beginning for the purpose of organization, and $15,462,463 has been paid out to injured employes and to the families of deceased employes. The total assets of the State Fund, as of December 31, 1927, amounted to $8,322,126 while the surplus on the above date was in excess of $3,069,573. The interest earnings derived from investment of surplus funds, during the year 1927, amounted to $326,234.

In analyzing these figures it is quite evident that the State Fund has established a remarkable record of achievement and that its fair and impartial treatment of policyholders and injured employes are convincing arguments and proof beyond doubt of the success of the State Fund.

The remarkable growth of the State Fund is all the more interesting when one stops to consider that it is not compulsory for employers of labor to insure with the State Workmen's Insurance Fund. The form of policy which the State Fund issues does not differ materially from the coverage provided and furnished by some fifty other insurance carriers, who are licensed to do business in Pennsylvania. The rates which the State Fund is authorized to use in the underwriting of policies are the same rates issued, published, and approved by the Insurance Department of Pennsylvania, which all other insurance carriers are compelled to use. Prior to 1928, policyholders in the State Fund received a 10 per cent initial reduction from these published rates. This plan was followed from 1916 to 1927, for the reason that the State Fund paid no commissions to agents and brokers and it was thought advisable to give the policyholder immediate benefit resulting from this saving. On January 1, 1928, the State Fund was authorized to use the same rates in the underwriting of their policies which all other compensation in-

surance carriers doing business in Pennsylvania are compelled to use. While this plan requires that a policyholder in the State Fund pays the same premium which he would pay to any other insurance carrier, it is only reasonable to presume that since the State Fund had ample and sufficient income, under rates of ninety per cent of published rates, out of which to pay their losses, expenses, and declare a substantial dividend to policyholders, it will, in all probability, with this additional ten per cent income, be able to declare a much larger dividend for the year 1928, on the assumption, of course, that conditions affecting the business of the State Fund are similar to those of the past few years.

FINANCIAL STATEMENT OF THE STATE WORKMEN'S INSURANCE FUND AS OF DECEMBER 31, 1927

As Determined March 31, 1928

By Philip H. Dewey
Manager

Assets

Investments (Book Value) Bonds and Guaranteed Mortgages on Real Estate....	$7,196,794.32
These securities are legal investments for Savings Banks in Pennsylvania and are, therefore, very safe investments.	
Reserve for Amortization	74,323.12
This item represents a fund to offset any reduction because of the premium paid in buying high class securities.	
	$7,122,471.20
Cash on Deposit in Banks	840,411.66
Premiums in Course of Collection December 31, 1927	640,807.98
Accrued Interest on Investments and Bank Balances	104,298.24
Gross Assets	$8,707,989.08
Premiums Earned to December 31, 1927, Not Collected as of March 31, 1928, Before Audit Additions	385,862.36
This item represents premium shown by audit of actual payrolls at the end of the year, but not admitted because more than ninety days overdue.	
	$8,322,126.72

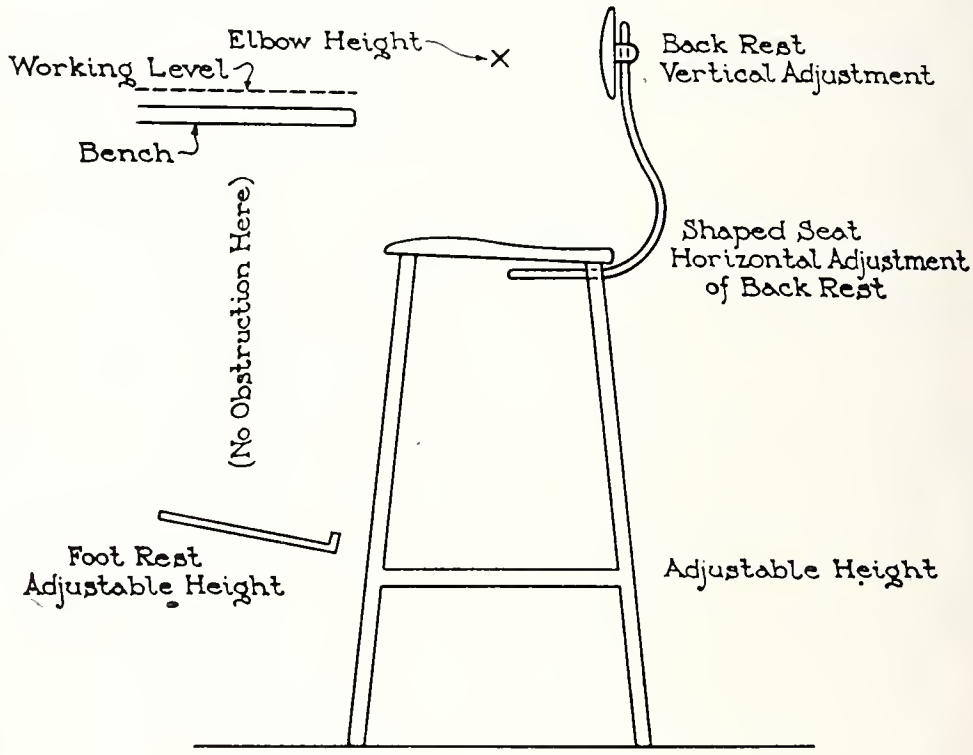
The earned premium for 1927 was more than $3,700,000, the largest premium income in the history of the State Fund.

Liabilities

Reserve for Claims	$4,569,704.24
This item represents the compensation to be paid when due to injured employes and the dependents of those fatally injured.	
Unpaid Dividends	33,611.52
Accounts Payable	15,558.08
Accrued Reinsurance Premiums	7,271.88
This item represents a part of the premium for catastrophe insurance of $500,000 carried by the State Fund.	
Balance of Coal Operators' Mutual Fund.	6,466.46
1928 Premiums Paid in 1927	619,941.41
Reserve for Catastrophe	1,000,000.00
This item represents a special amount set aside for catastrophe and is not regarded as available for distribution to subscribers.	
Surplus	2,069,573.13
This item represents the net surplus after deducting premium additions of $385,662.36 that had not been collected as of March 31, 1928.	
	$8,322,126.72

A 16.5 per cent expense ratio on the premium income of the State Fund for salaries and all administrative expenses of the Fund, or a 15.1 per cent expense ratio on the entire income of the State Fund, shows that it was economically managed.

DIAGRAM OF A GOOD INDUSTRIAL CHAIR WITH SITTING - STANDING ARRANGEMENT



A GOOD CHAIR FOR THE INDUSTRIAL WORKER

By Elizabeth S. Johnson
Bureau of Women and Children

The need of good posture and good chairs for industrial workers is becoming more generally recognized with the increasing knowledge of fatigue and its resulting inefficiencies. It is commonly agreed that a worker should be provided with a chair which will so support his body that a minimum of energy will be required to maintain the best working position. Principles have been developed for the construction and use of a chair which will provide for good working posture. It is the aim of this article to present these principles in such a way as to help employers and managers to know a good chair when they see one and to guide them in making installations of seating equipment.

The report "First Principles of Industrial Posture and Seating" by the Bureau of Women in Industry, New York Department of Labor,* furnished much of the material used in the preparation of this article. Valuable suggestions also have been obtained from unpublished studies of chairs and posture made by the General Electric Company of Erie, Pa., and the Lycoming Rubber Company of Williamsport, Pa. Observations made by the Bureau of Women and Children of the seating equipment used in a number of plants over the state have verified the stated principles and furnished supplementary suggestions.

PRINCIPLES OF CONSTRUCTION

The principles of construction of a good work chair are fourfold: a back rest; a seat shaped to the body; adjustability of height; and provision for foot support, either the floor or a foot rest. These principles as explained below represent general agreement among authorities, but in their application to specific jobs they may need modification as well as amplification. The diagram on page 10, illustrating the principles, omits measurements because the variation both in individuals and in operations makes any one set of figures misleading.

1. Back Rest

Position—at the small of the back ..... The back rest should give support to the weakest part of the back, the portion of the spine which tends to bend outward as the body stoops forward. The back rest will then be low enough not to interfere with the freedom of arm movement.

Size—small ..... It may vary from 3 to 7 inches in width and from 8 to 12 inches in breadth.

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* Special Bulletin No. 141, New York State Department of Labor, 1926, New York City.

Adjustability — vertical and horizontal .. Both vertical and horizontal adjustability are necessary for fitting the back rest to different sized workers. An adjustable back rest also makes the chair more adaptable to different operations.

Slant—variable ..... The back rest should be hinged to the supporting rods so that its slant will be variable, conforming to the slant of the worker's back with his change in position.

Material—wood ..... The back rest should be made of wood which is more comfortable than metal. The edges should be rounded for comfort.

Supporting rods—curved outward ..... The rods supporting the back rest should be curved outward not to touch the body when the back rest is used.

—flexible ... The rods should be flexible to give with the movements of the body.

2. Seat

Shape—fitting the body ..... The seat should be constructed to distribute the weight of the body. A saddle shaped seat is good.

—rounded at front edge ..... The front edge of the seat should be well rounded to avoid pressure on the blood vessels under the knees.

Size—at least 16 inches wide. The seat should be fully as wide as the fleshy part of the body to give the greatest possible support and comfort to the body.

—about 13 inches deep .. The seat should be shallow enough that the back rest can be used when the worker sits erect.
A rounded seat is never desirable.

Slant—toward the back ..... The back of the seat should be one-half to one inch lower than the front.

Material—wood ..... Wood is the best material for any part touching the body because it has not the hardness of metal and does not conduct heat or cold. There should be no rim around the seat.

3. Height

Adjustable ..... The height of the chair should be adjustable that it may be adapted to workers of different sizes.

4. Foot Rest—Wherever the worker's feet do not rest squarely and easily on the floor a foot rest should be provided.

Height—adjustable ..... The foot rest should be adjustable in height for different sized workers.

Size—10 inches deep ..... The foot rest should be of ample size for the entire soles of both feet.

Slant—toward chair ..... It should be two inches lower on the side toward the chair. A cleat at the lower edge is advisable to brace the heels.

Attachment—to work place or floor ..... It should be attached to the work bench or machine or to the floor. A properly constructed foot rest attached to the chair is cumbersome.

PRINCIPLES OF USE

A well constructed chair does not solve the question of good working posture. It is necessary that the chair be properly related to the work bench or machine and adjusted to the individual worker.

Relation to Work Place

The chair must be carefully adjusted to the work place for height. The relative height of the worker to the working level will vary in different operations. For bench work the worker's elbows generally should be from one to three inches above the level of the object worked on. For machine work the elbows generally should be below the point of operation. The exact relation can be determined only by the analysis of each operation in question.

Whatever the operation, it is essential that there be plenty of room for the worker's legs. At least six inches should be allowed between the lower side of the work bench or machine apron and the seat of the chair. No brace or other obstruction should interfere with the knees. Approximately twelve inches back from the line of the front edge of the work bench or machine apron should be clear.

Sitting-Standing Principle

A very desirable working arrangement is one where the height of the work bench is correct for standing and the chair correspondingly high so that the worker when seated has the same relative position to his work as when he stands. A foot rest is absolutely essential in this arrangement. The height of the work bench, where it is not individually adjustable, should be planned with consideration for the sex and general stature of the workers using it. The advantage of the sitting-standing arrangement lies in the opportunity it gives the worker to vary his posture. Constant sitting as well as constant standing is fatiguing. This arrangement is adaptable to many operations which have customarily been done by workers standing constantly. The sitting-standing arrangement has been used in the diagram illustrating the construction of a good work chair.

SOME PRACTICAL CONSIDERATIONS IN THE USE OF GOOD CHAIRS

The successful use of a good chair depends on taking full advantage of all of its features. Failure to meet one of the requirements of good use will often destroy the value of other features and adjustments correct in themselves.

The failure to provide foot rests for a group of young girls wrapping cigars in one plant illustrates how greatly the value of otherwise good chairs may be diminished. The work tables were constructed appar-

ently for seated men workers. The girls using them had to have the seats of their chairs twenty-one to twenty-three inches from the floor in order to have their arms in the right relation to their work. Their legs hung uncomfortably with their toes barely reaching the floor, causing the girls either to hook their feet around the chair legs or to sit on the forward edge of their chairs. In either case their bodies were thrown out of good working balance. The best remedy for the situation would have been to raise the work table and to provide foot rests to make a sitting-standing arrangement.

Failure to make back rest and height adjustments frequently means that the value of these good features is lost. Carelessness in making height adjustments meant in one plant that instead of raising the chair by using the devices for the purpose, boards were put over good saddle shaped seats. An unadjusted back rest may be useless because it is too far away. Where the operator must lean forward, as in the case of a sewing machine operator, the back rest will often be used only a small proportion of the day, such as when the operator is changing work or is especially tired. This occasional use of the back rest by no means lessens its importance as a part of the chair. Momentary use of a back rest gives relaxation to the back which is the more valuable because it is occasional.

Almost more fatal to the satisfactory use of a good chair is the failure to provide a proper work bench. The worker cannot use the back rest if his legs cannot get under the work bench or machine. The designers of machines need to give more attention to the anatomy of the operator. Whole rows of machine operators have been seen sitting with their knees twisted to one side because the construction of the machinery and guarding allowed too little space for the operator's legs. The only alternative for the operators was to sit away from the machine and to lean forward, a posture tiresome in itself and making the back rest useless. The back rest may also be rendered useless because the machine pedals interfere with the operator's having his chair as close to the machine as desirable. Additional rests for the feet should be provided where the pedals do not support both feet including the heels.

Since the adjustment of the chair to the individual worker and to the work place is a matter neglected so easily and at such great cost, it is advisable that some one person in the plant, thoroughly familiar with the operations, learn the principles of good seating and be made responsible for seeing that every new worker has his chair and work place correctly adjusted. One person specializing in the posture problems of a plant acquires skill and experience which inevitably means better results than where individual workers or busy foremen handle the seating problems in a haphazard way.

It should be remembered that a worker who has not been accustomed to a chair constructed for good posture cannot in a moment change his

posture and work habits. Where good chairs are being introduced, it is recommended that the workers' interest be enlisted in the idea of better chairs and that the chairs be given trial use for at least two weeks before judgment of them is passed.

SERVICES AVAILABLE FROM THE PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY

The Bureau of Industrial Standards of the Department of Labor and Industry has approved several commercially manufactured chairs which are constructed in accordance with the general principles given in this article. A list of these approved chairs together with the names and addresses of their manufacturers will be sent to anyone requesting it.

The Bureau of Women and Children is ready to give its services to any employer desiring advice on problems of chairs and seating arrangements.

THEY PUT SAFETY FIRST*

Shingle Silk Corporation, Elysburg—No lost-time accidents in 1927; number of working days, 290; number of employes, 50.

The Bethlehem Steel Company, Bethlehem plant, employing over 11,000, including the main office, had a total of 29 lost-time accidents, with one serious one, during the first quarter of 1928. This compares with 96, including three serious cases, for the first quarter of 1927, showing a reduction of approximately 70 per cent. Moreover, these 29 lost-time accidents for the first quarter of 1928 show an average of a trifle under 10 per month as compared with a monthly average of 28.7 for the year 1927, and 48 for the year 1926.

The Farrell Works of the Carnegie Steel Company had a total of 7 lost-time accidents from January 1 to May 1, 1928, for a total of 1,601 employes working 1,433,633 man-hours. This plant, up to May 1, 1928, had not had a fatality since April 27, 1925.

C. K. Eagle & Company, Incorporated, Shamokin, manufacturers of broad silk—Total hours lost by accidents in 1927, 8,720; total hours worked, 7,444,987; hours lost per thousand hours of work, 1.2; total number of employes, full time, 2,863.

Wilmot Engineering Company, White Haven, grey iron foundry, machine and pattern shop—Safety has been definitely regulated for 6 years and in that time accidents reduced 70 per cent. During the year 1927 only one lost-time accident among 126 employes. Safety in charge of one man.

Oil City Boiler Works, Oil City—Has had steady decrease of accidents in last five years; record of 9 lost-time accidents in working force of 97 employees for 1927, being reduction of 43.3 per cent in accidents as compared with 1923.

Out of 67 departments of the General Electric Company plant at Erie, employing over 4,000 persons, 29 departments went through 1927 without a lost-time accident. These 29 groups included 1,043 employes. One of the groups with a perfect record for the year was the Testing Department, with 125 men engaged in extra-hazardous work.

Hammermill Paper Company, Erie, manufacturers of pulp and paper—Accidents reduced from 395 per 1,000 employes in 1916 to 75 per 1,000 employes in 1927, or 81 per cent reduction; plant has 1,297 employes; Power Department, with 56 employes operating steam tur-

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* This will be a monthly feature in LABOR AND INDUSTRY. Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication to Director, Bureau of Inspection, Department of Labor and Industry, or to the Divisional Supervisor of the Bureau.

bines, engines, and boilers operated over 26 months without a lost-time accident, and was still going on May 12.

No accidents involving loss of time since October 24, 1923, is the remarkable record of the Franklin Foundry Company, conducting a general jobbing grey iron foundry at Franklin. The record given as of May 12, 1928, was still going on at that date.

Jarecki Manufacturing Company, Erie, makers of valves and pipe fittings, oil and gas well supplies—Accidents reduced 43 per cent in 1927 as compared with 1926.

Franklin Steel Works, Franklin—Accident records since 1923 give striking evidence of worth of safety organization; in 1923 and 1924, without safety committee, there were 65 and 56 lost-time accidents respectively; in 1925, 1926, and 1927, with safety organization, there were 38, 28, and 16 for respective years, showing steady decline. Number of employes throughout entire period averaged 257.

General Manifold and Printing Company, Franklin—In this printing plant, with 240 employes, 70 of them females, no lost-time accidents were recorded from December 1, 1926, to March 1, 1928. Mr. Clifford Barnard, President of the Company, gives credit to his safety organization and to the recommendations of the Bureau of Inspection for a great reduction in their accidents.

Van Alen & Company, Northumberland, nail factory—One lost-time accident in 1927; number of employees, 65; number of working days, 270.

Lycoming Silk Company, Williamsport—No lost-time accidents in 1927; number of employes, 37; number of working days, 307.

W. R. Hoehn Silk Company, Williamsport—One lost-time accident in 1927; employes, 92; number of working days, 307.

John N. Sterns Company, Williamsport, silk mill—Two lost-time accidents in 1927; number of employes, 600; number of working days, 300.

The foundry of the Lycoming Manufacturing Company, Williamsport, had an excessive accident rate. This concern agreed to coöperate with the Bureau in safety work. As a result, last month there were no lost-time accidents; number of employes, 700; number of working days, 26. The plant manufactures automobile motors.

INDUSTRIAL BOARD

The following rules and interpretations were approved by the Industrial Board at a meeting held June 22, 1928.

Rules

1. Amendment to Rule 101 (g) (A-I) of Ladder Regulations.

   "Ladders over thirty feet in length shall be provided with cages or wells of adequate dimensions except where the ladder is built in zig-zag sections and provided with platforms between sections, or when ladders are installed on stacks *or the supports of water tanks. If, in case of ladders on supports of water tanks, the ladder changes its angle of rise so that the climb becomes vertical, such ladders shall be provided with cages or wells extending from the top of the ladder down to a point at least five feet below the point of change in angle of rise.*"

2. Means of Egress from School Buildings.

   "That all existing school buildings over one story in height shall be provided with more than one means of egress, such means of egress to be located as may be prescribed by the Secretary of Labor and Industry."

3. Standards for Instruments Required on Emergency Lighting Systems.

   "All milliammeters, ammeters and voltmeters used in connection with emergency lighting systems shall be of the d'Arsonval (permanent magnetic moving coil) form, with scales not less than two inches long and guaranteed accuracy of not less than 2% of full scale value at any point on the scale."

4. Amendment to Rule 263 (c) (NI) of Elevator Regulations.

   "The diameter of all sheaves or drums for power driven dumbwaiters, the cables of which exceed ⅜ inch in diameter, shall be at least 40 times the diameters of the cables used. The diameter of sheaves or drums for power driven dumbwaiters, with cables ⅜ inch or less, shall be at least 30 times the diameters of the cables used."

5. Employment of Minors at Meat Grinding Machines.

   "That the employment of minors under sixteen years of age on power driven meat grinding machines is prohibited."

6. Boiler Regulations.

   Revised draft of Boiler Regulations was approved.

Interpretation

1. Interpretation of Rule 1, Paragraphs (h) and (i) of Emergency Lighting Regulations.

   "It is interpreted that where three-way switches controlling exit circuits, hallway, stairway, and corridor circuits of buildings are

installed in such a manner that a continuous flow of current over the entire emergency lighting circuits is not interrupted, regardless of the position of the switch, such switches may be installed."

The following devices were considered and approved:

Schwarzenbach-Huber Co., Altoona, Pa.	Individual installation of steam turbine emergency lighting system.
Hollingsworth Company, Philadelphia, Pa.	Type H 110 volt emergency lighting system
A. F. Shane & Company, Pittsburgh, Pa.	Westinghouse DC steam turbine emergency lighting system.
General Electric Co., Schenectady, N. Y.	Type CR-7896 Y1 automatic throwover switch for emergency lighting purposes.
National Bldg. Units Corp., Philadelphia, Pa.	8" size cinder blocks for use in bearing walls of elevator shaftways and for fire towers.
The Erie City Iron Works, Erie, Pa.	Types CD, CS, ES, ED, SF, MC, MS, ME and MD latches for boiler doors.
Richmond Fireproof Door Co., Richmond, Indiana.	Types "E" and "EM" locking devices for freight elevators (conditional).
The Cutler-Hammer Mfg. Co., Milwaukee, Wis.	Bulletin #1272 locking device for car switch and push button control elevators.
C. J. Anderson & Co., Chicago, Ill.	Type "L" locking device for sliding doors at terminal landings of passenger elevators.
Irving Iron Works Co., Long Island City, N. Y.	Extension of previous approval of Irving Steps to use on fire escapes.
David H. Smith & Sons, Inc., Brooklyn, N. Y.	"Monoprest" fire escape step.
George Vanier, Duncannon, Pa.	"Vanier" fire escape step.
Marshall Brothers Co., Pittsburgh, Pa.	Extension of approval of Type A-3501-1-2 automatic door opening and closing device to car switch control elevators.
Landis Engineering & Mfg. Co., Waynesboro, Pa.	Type AEG 110 volt emergency lighting system by clock system of charging permissible when installed in schools and colleges.

The following device, previously approved, is no longer manufactured and recommendation is made that it be removed from the list of approved devices:

Acme Lock Works, Columbus, Ohio.	Type S locking device for vertical operated gates of freight elevators.

JOHN W. BIRKEY

John W. Birkey, of Newportville, Bucks County, was born February 22, 1867, and died on Friday, June 29, 1928, in the 62nd year of his age.

He was appointed a general factory inspector of the Department of Labor and Industry August 1, 1919, and in 1927 was promoted to the position of special building inspector.

REVIEW OF INDUSTRIAL STATISTICS

Prepared by

THE BUREAU OF STATISTICS

The Labor Market

A decline of employment in the State is indicated in the reports of activities of State Employment offices for June. A steady reduction of the number of unemployed persons in the Commonwealth has been shown in the employment office reports for the first five months of this year, but in June there was an increase in the ratio of registered applicants for employment to available openings. The ratio of registered applicants per 100 open jobs for June was 227 compared with 199 for May and 213 for April. The June report shows that a total of 10,916 men and women applied for work through State Employment offices during the five-week period covered by the report, and of this number only 3,598 persons, or less than one-third, were placed in employment. A recession of industrial activity usually is expected during the summer months, however, the increase in applications for employment during June seems a trifle higher than warranted by the customary seasonal reductions of business. Nevertheless, there is some encouragement in the fact that while the percentage of unemployed persons, as measured by the ratio of applicants for employment to open jobs, for June, 1928, is 10 per cent higher than in June, 1927, the total number of persons applying for employment at State offices in June, 1928, is nearly 25 per cent less than in June, 1927. This can be construed as meaning that there are now fewer persons out of work than at this time last year, or else unemployed persons are not availing themselves of the free State employment service in the same numbers they formerly did. The latter presumption seems very unlikely. There are no apparent reasons why unemployed workers would not be using the free State employment service in the same or even in greater proportion now than in preceding years.

This ratio of more than two applicants for every open job holds true for nearly all industries. The graduation of large classes from colleges and high schools in June is responsible for the increased numbers of applications for work of a professional or technical nature.

Applications for work in the building and construction industry were few compared with last year which would seem to indicate fairly full employment in the building trades. Employment in the manufacturing and transportation industries was inactive. The demand for workers in hotels and restaurants continued good, especially the demand for female help. Few calls were received for clerks in retail stores, although a few establishments were employing temporary help to fill in during the vacation months. Unskilled labor continued about 50 per

cent unemployed. Casual jobs helped to relieve unemployment for this group. Following the end of the housecleaning season, the employment of women day workers was reduced considerably.

Of the nine cities where full-time State Employment offices are maintained, Harrisburg had the best employment ratio. There were 161 applicants for every 100 jobs in Harrisburg during June. Erie was next best with 169 applicants for every 100 jobs. Johnstown offered third best opportunities for employment with a ratio of 186 to 100. Ratios for other cities were as follows: Philadelphia, 209; Allentown, 217; Altoona, 228; Scranton, 263, and Pittsburgh, 309. The ratio for Reading could not be computed because of incomplete reports.

Employment, Wages, and Hours Worked

Scarcely any change in manufacturing employment was recorded in June. Reports received from 812 manufacturing establishments representing 51 manufacturing groups show no net change in employment for June compared with May. Average weekly earnings of workers in June were approximately one per cent less than in May. A decrease of 1.5 per cent in working hours in June compared with May is shown by the reports received from 479 firms. The adoption of a shorter schedule of hours for the summer months by some firms is no doubt accountable for this decrease in operating time.

Few changes in employment were reported for the metal industry groups. Six groups show slight decreases compared with May, and six show small gains. Increased employment was reported by 13 of the 17 firms included in the electrical apparatus group. A general improvement of business for this industry was noticeable. Brass and bronze foundries reported a 6.1 per cent increase in employment. However, a number of the larger foundries were working only 5 days a week.

Automobile plants show a 5.5 per cent gain in employment over May. This increase is due principally to the report of one firm in the western part of the State which resumed normal operation in June after having been shut down for nearly a year. A total of 236 workers were hired by this company during June.

In the textiles' group, cotton goods mills showed a 5.5 per cent decline in employment. One mill was completely closed down during June. Employment gains were reported for the woolens and silk goods' groups. Improved business was reported by men's clothing manufacturers. The gain in employment in men's clothing factories amounted to 11.5 per cent over May. The women's clothing industry which had been running slightly above normal showed a 12 per cent decline in employment in June.

The food industries were busy, showing a 2 per cent increase in employment over May. The confectionery and ice cream groups are having a good volume of business, and employment for both groups is higher than in June, 1927.

Manufacturers of building supplies report large decreases in employment compared with last year. The brick, cement, and lumber industries are operating with 10 to 25 per cent less employes than in June, 1927. Glass factories are operating at about the same level as last year.

Construction employment is following closely the trend of building permits in the various sections of the State. Philadelphia, Pittsburgh, and Scranton are showing increases both in volume of building permits and in construction employment while the smaller communities of the State are showing marked declines in building permits and in employment. The June index for construction employment shows a 10.8 per cent decrease compared with May, 1928, and a 22.9 per cent decrease compared with June, 1927.

The only reasonable comment that can be made on general employment conditions for June is that they appear to be no worse than in May. Some industries are showing signs of business improvement, but there has been no widespread movement which would signify that the business depression of the last six months has been completely overcome.

Industrial Accidents and Compensation Costs

Reports of 193 fatal and 12,503 non-fatal accidents were received at the Bureau of Workmen's Compensation during June. Compared with the accident record for May, this is a decrease of 169 fatal accidents and 538 non-fatal accidents, or decreases of 47 per cent and 4 per cent respectively. The total of fatal accidents for May was exceptionally large because it included the record of 184 deaths which occurred in the mine disaster at Mather, Pa., on May 19th. Accordingly, the fatal accident total for June shows a large reduction compared with May. Excluding the fatalities resulting from this mine disaster, fatal accidents for June show a slight increase over the number reported for May.

Except for the unfortunate tragedy at the Pickands Mather mine, the accident experience for the first six months in 1928 shows vast improvement over the experience for the eorresponding period in 1927. With the fatal accident figures for this recent mine disaster excluded from the comparison, fatal accidents for the first six months in 1928 show an 8.6 per cent decrease compared with the accident experience for the first half of 1927, and non-fatal accidents show a 9.9 per cent decrease. The accident figures for both years are as follows:

	Fatal	*Non-fatal*
First six months, 1927	1,045	80,933
First six months, 1928	955*	72,898
Decrease in 1928	90 (8.6%)	8,035 (9.9%)

* Exclusive of 194 deaths in the Mather mine explosion.

Ten additional deaths which occurred in the Mather mine explosion were reported during June. This brings the total of reported deaths in the accident to 194.

Increased numbers of fatal accidents were shown for several industry groups during June. The 193 fatalities reported during June were distributed industrially as follows: construction and contracting, 20; manufacturing, 36, of which 15 occurred in the metal industries; anthracite coal mining, 50; bituminous coal mining, 39; transportation, 14; public utilities, 11; quarries and mines other than coal mines, 4; wholesale and retail trading, 6; state and municipal, 12; and miscellaneous, 1. The manufacturing, anthracite coal mining, transportation, and public utility groups show gains in fatal accidents over May. Manufacturing industries show an increase of 3 fatalities over last month, anthracite coal mines a gain of 2, transportation an increase of 7, and public utilities a gain of 9.

Fatal accident totals for the various industry groups for the first six months in 1928 compared with totals for the corresponding period in 1927 are as follows:

Industry	*6 months 1928*	*6 months 1927*	*Increase (+) or decrease (—) in 1928*
Construction and contracting	99	109	—10
Manufacturing	185	206	—21
Anthracite mining	250	271	—21
Bituminous mining	374	202	+172
Transportation	76	111	—35
Public utilities	21	20	+1
Quarries and non-coal mines	16	21	—5
Trading	33	28	+5
State and municipal	62	47	+15
Miscellaneous	33	30	+3
Total	1,149	1,045	+104

The drive for safety organization in industry is beginning to show some very real results. The transportation industry has achieved an enviable record in fatal accident reduction for the first half of this year. The reductions recorded for the construction, manufacturing, and anthracite coal mining industries also are worthy of notice. If it were not for the Mather disaster, the bituminous coal industry also would have shown an appreciable reduction in fatal accidents. The increase of 15 fatalities in the state and municipal group evidently is due to the increased hazards encountered by those to whom the protection of life and property is delegated. There were 18 firemen and 14 policemen killed in the performance of their duties during the first six months of 1928. The work of constructing and repairing public highways also is becoming a hazardous occupation. Eighteen employes of state, city, and county highway departments were killed during the first six months in 1928.

Falling objects topped the list of causes of fatal accidents to workers during June. Fifty-two fatalities were attributed to this cause, or 27 per cent of the total fatalities from all causes. Forty-seven of the 52 deaths due to falling objects were due to the fall of roof or face in coal mines. Explosions with a total of 29 was the second highest cause of death during June; 26 of these deaths occurred in coal mines. Twenty-three workers were killed by cars and engines during the month; 11 were employed in coal mines, 10 on steam railroads, one in the construction industry, and one was a municipal employe. Falls of persons was the fourth highest cause of industrial fatalities and was charged with a total of 22 deaths in June.

Compensation awards for June reached a record figure. Agreements involving the payment of $2,087,979 in compensation were approved during June. This total was distributed as follows:

261 fatal cases	$1,129,187
295 permanent disability cases	336,859
7,021 temporary disability cases	621,933

The exceedingly large amount of fatal compensation awarded during June is due to the approval of agreements for compensation to be paid to the dependents of those killed in the Mather mine disaster. In accidents of this sort, a special effort is made to see that compensation payments to dependent families begin promptly. The fact that payments have already begun in practically all cases where the surviving dependents are residents of the United States indicates very good work on the part of the insurance carrier. The necessity of establishing actual dependency has temporarily delayed the signing of agreements in 13 cases. It was established through investigation that in 40 cases there were no surviving dependents entitled to compensation. In 22 cases the dependents reside in foreign countries, and in these cases unavoidable delays are encountered in having compensation agreements signed and executed.

Compensation awards on account of permanent injury cases for June included awards for the loss, or loss of use of, 40 eyes, 7 arms, 22 hands, 148 fingers, 91 phalanges, 15 legs, and 16 feet. Hand, finger, and phalanx losses were higher than in May.

The average length of disability for the temporary disability cases compensated in June was 54 days compared with 50 days for the May cases, and compared with 43 days average disability for the cases compensated during June, 1927.

The total of compensation awarded during the first six months of 1928 is $8,091,162, a gain of $1,664,367, or 25.9 per cent over the amount awarded during the corresponding period last year.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF JUNE, 1928

(Five Weeks)

INDUSTRIES	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	10,916	7,104	3,812	4,806	3,340	1,466	5,256	3,711	1,545	3,598	2,595	1,003
Total: Industrial Group (skilled)	3,644	2,601	1,043	1,460	1,147	313	1,521	1,204	317	855	724	131
Building and construction	513	513	.....	231	231	.....	232	232	.....	166	166	.....
Shipbuilding	77	77	.....	48	48	.....	35	35	.....	30	30	.....
Chemicals and allied products	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clay, glass and stone products	8	8	.....	5	5	.....	5	5	.....	4	4	.....
Clothing	13	2	11	38	.....	38	3	.....	3	3	.....	3
Textiles	50	49	1	17	1	16	2	1	1	2	1	1
Food and Kindred Products	27	27	.....	11	11	.....	12	12	.....	6	6	.....
Leather, rubber and composition	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber, woodwork and furniture	33	33	.....	13	13	.....	14	14	.....	8	8	.....
Paper and printing	15	14	1	3	3	.....	4	4	.....	3	3	.....
Metals and metal products	886	885	1	541	541	.....	556	556	.....	334	334	.....
Mines and quarries	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Transportation and public utilities	331	323	8	109	108	1	120	116	4	51	51	.....
Hotel and restaurant	172	40	132	94	26	68	74	22	52	45	14	31
Wholesale and retail trade	225	53	172	48	14	34	81	30	51	31	10	21
Miscellaneous	1,287	571	716	302	146	156	383	177	206	172	97	75
Total: Other Groups	7,272	4,503	2,769	3,346	2,193	1,153	3,735	2,507	1,228	2,743	1,871	872
Professional and technical	614	517	97	167	139	28	227	195	32	70	58	12
Agriculture	18	18	.....	9	9	.....	10	10	.....	6	6	.....
Semi-skilled	2,372	899	1,473	858	267	591	945	294	651	500	168	332
Unskilled	2,946	2,765	181	1,536	1,494	42	1,753	1,703	50	1,399	1,363	36
Casual and day workers*	1,322	304	1,018	776	284	492	800	305	495	768	276	492
May, 1928	8,414	5,360	3,054	4,236	2,517	1,719	4,721	3,010	1,711	3,082	1,922	1,160
April, 1928	7,531	4,759	2,772	3,538	2,185	1,353	3,782	2,313	1,469	2,664	1,739	925
March, 1928	10,463	6,139	4,324	3,811	2,302	1,509	4,292	2,507	1,785	2,671	1,655	1,016
June, 1927	14,314	9,277	5,037	6,515	4,511	2,004	6,834	4,724	2,110	5,653	4,089	1,564
June, 1926	12,661	9,048	3,613	7,845	5,571	2,274	8,094	5,999	2,095	6,857	5,150	1,707
June, 1925	14,792	10,724	4,068	9,240	7,279	1,961	9,515	7,689	1,826	8,173	6,663	1,510

*The placement of each casual or day worker is recorded for only one (1) placement per week.

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS—week ended	
		No. of wage earners week ended June 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended June 15, 1928	Index numbers 1923-1925=100				
			June 1928	Per cent change compared with			June 1928	Per cent change compared with		June 15, 1928	May 15, 1928
				May 1928	June 1927			May 1928	June 1927		
ALL INDUSTRIES (51)	812	258,396	86.7	0.0	— 6.7	$6,664,485	89.0	— 0.6	— 7.3	$25.79	$26.03
Metal products:	237	100,573	81.8	— 0.6	— 8.5	2,772,566	84.4	— 3.1	— 9.1	27.57	28.24
Blast furnaces	9	1,996	45.6	— 1.5	—35.3	59,315	49.0	— 1.2	—36.5	29.72	29.67
Steel works and rolling mills	44	53,173	77.0	— 2.2	—10.2	1,458,982	77.8	— 6.7	—11.6	27.44	28.83
Iron and steel forgings	10	1,710	79.5	— 2.7	— 8.7	45,366	87.0	— 0.5	— 4.0	26.53	25.93
Structural iron work	10	4,121	97.6	+ 1.6	— 3.2	117,490	101.0	+ 0.9	+ 2.2	28.51	28.59
Steam and hot water heating appliances	17	4,518	94.3	+ 0.4	+ 1.6	138,482	106.4	+ 1.7	+ 4.3	30.65	30.27
Stoves and furnaces	9	915	77.0	— 3.6	—16.3	25,131	73.9	+ 1.9	—17.7	27.47	25.92
Foundries	40	7,652	84.2	+ 0.5	— 5.1	212,585	86.4	— 1.5	— 7.4	27.78	28.32
Machinery and parts	40	9,419	102.4	+ 1.6	+ 2.1	289,171	110.7	+ 2.1	+ 3.3	30.70	30.56
Electrical apparatus	17	6,507	96.6	+ 5.0	—11.2	159,272	104.1	+ 1.3	—11.6	24.48	25.37
Engines and pumps	10	3,262	88.3	— 1.8	— 9.7	88,869	89.2	— 2.2	—10.7	27.24	27.36
Hardware and tools	20	6,276	81.0	— 1.1	— 9.9	151,910	84.6	+ 6.7	— 9.5	24.20	22.37
Brass and bronze products	11	1,024	93.5	+ 6.1	+10.9	25,993	89.5	+ 7.6	+ 3.0	25.38	25.06
Transportation equipment:	40	28,918	70.0	+ 0.4	—20.5	864,501	72.0	+ 3.7	—18.3	29.89	28.97
Automobiles	6	4,956	97.3	+ 5.5	— 0.7	166,815	113.4	+ 3.5	+ 7.5	33.66	34.31
Automobile bodies and parts	11	6,891	82.1	+ 1.2	+10.9	218,979	80.6	+ 1.6	+11.9	31.78	31.65
Locomotives and cars	13	12,115	59.1	— 1.7	—24.0	339,910	57.3	+ 7.5	—15.0	28.06	25.69
Railroad repair shops	6	3,374	83.7	+ 0.2	— 3.0	97,233	91.1	+ 3.5	+ 2.2	28.82	27.91
Shipbuilding	4	1,582	30.2	— 0.3	—66.4	41,564	27.3	—10.2	—69.6	26.27	29.27
Textile products:	167	54,557	96.1	+ 0.7	— 1.5	1,175,679	100.2	+ 0.6	— 3.1	21.55	21.55
Cotton goods	14	3,254	74.3	— 5.5	—20.9	73,897	72.8	— 4.0	—21.5	22.71	22.41
Woolens and worsteds	16	6,336	89.0	+ 5.8	— 2.8	126,493	84.1	+ 1.0	— 2.4	19.96	20.94
Silk goods	40	16,870	99.4	+ 3.2	+ 3.5	309,167	99.4	+ 2.8	+ 3.3	18.33	18.42
Textile dyeing and finishing	9	1,826	114.5	— 2.6	— 5.5	45,667	120.0	+ 0.5	— 3.2	25.01	24.20
Carpets and rugs	10	2,704	84.7	— 3.2	— 8.5	64,392	79.9	+ 0.1	—13.9	23.81	23.00
Hats	5	4,021	100.5	— 0.3	+ 0.1	103,525	101.4	+ 8.6	— 4.3	25.75	23.65
Hosiery	27	11,284	111.2	— 2.0	— 1.7	308,256	135.7	— 3.3	— 0.5	27.32	27.66
Knit goods, other	15	3,097	87.6	0	+10.9	56,023	89.5	— 1.1	+18.9	18.09	18.30
Men's clothing	11	1,683	87.0	+11.5	—19.0	34,979	85.5	+16.8	—27.3	20.78	19.82
Women's clothing	9	1,113	105.1	—12.0	+ 1.5	16,237	107.2	—15.9	— 0.4	14.59	15.17
Shirts and furnishings	11	2,369	91.4	+ 0.8	— 3.7	37,043	88.7	+ 4.1	— 1.6	15.64	15.14

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants eporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS—week ended	
		No. of wage earners week ended June 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended June 15, 1928	Index numbers 1923-1925=100				
			June 1928	Per cent change compared with May 1928	Per cent change compared with June 1927		June 1928	Per cent change compared with May 1928	Per cent change compared with June 1927	June 15, 1928	May 15, 1928
Foods and tobacco:	103	23,248	98.7	+ 2.0	+ 0.4	$485,528	101.3	+ 3.1	— 2.2	$20.88	$20.67
Bread and bakery products	20	4,382	106.0	+ 0.3	— 6.2	129,107	103.7	+ 1.1	— 7.9	29.46	29.22
Confectionery	14	4,145	89.9	+ 1.2	+ 3.1	85,106	104.0	+ 2.8	— 0.7	20.53	20.20
Ice cream	11	1,511	101.7	+ 8.5	+ 8.5	47,603	108.3	+ 2.9	+ 3.2	31.50	33.20
Meat packing	14	1,977	91.1	+ 1.6	— 5.5	55,732	87.5	+ 1.7	— 9.2	28.19	28.12
Cigars and tobacco	34	11,233	102.0	+ 2.3	+ 3.1	167,980	103.0	+ 5.1	+ 2.9	14.95	14.54
Stone, clay and glass products:	63	16,570	87.3	— 0.3	— 9.4	459,439	88.7	— 0.6	— 9.9	27.73	28.27
Brick, tile and pottery	30	4,732	90.1	+ 0.1	— 9.5	112,384	86.3	— 3.0	—15.3	23.75	24.54
Cement	14	6,297	87.8	— 3.2	—16.8	205,881	98.7	— 1.9	—18.2	32.70	32.24
Glass	22	5,541	90.9	+ 4.6	+ 0.4	141,174	86.3	+ 4.5	+ 6.5	25.48	27.17
Lumber products:	45	4,289	69.8	+ 0.6	—20.9	91,697	69.8	+ 2.5	—20.6	21.38	20.98
Lumber and planing mills	19	1,909	61.1	+ 0.8	—24.3	41,786	64.8	+ 0.2	—22.0	21.89	22.05
Furniture	20	1,649	69.8	— 0.3	—24.4	36,021	64.2	+ 1.6	—28.0	21.84	21.45
Wooden boxes	6	731	114.6	+ 1.1	+ 1.8	13,890	135.1	+12.4	+16.1	19.00	17.12
Chemical products:	47	10,995	96.7	— 0.4	+ 1.2	318,687	104.9	— 1.5	+ 2.3	28 98	29.35
Chemicals and drugs	27	1,353	89.6	— 3.6	+ 4.1	37,260	92.5	— 3.3	+ 4.9	27.54	27.48
Coke	3	2,932	126.7	— 1.6	+29.0	84,225	128.9	— 2.0	+39.1	28.73	28.83
Explosives	3	517	119.4	+ 4.2	— 8.6	13,602	113.7	+ 7.8	—11.4	26.31	25.44
Paints and varnishes	9	1,006	124.3	— 2.4	— 9.9	27,673	132.3	— 2.4	+ 4.0	27.51	27.53
Petroleum refining	5	5,187	84.5	— 1.2	— 7.7	155,927	93.2	— 1.6	—10.4	30.06	30.90
Leather and rubber products:	50	11.205	98.2	0.0	+ 8.0	252,790	101.3	+ 0.5	+ 4.4	22.56	22.46
Leather tanning	17	5,863	106.0	— 0.6	+ 9.4	148,111	108.9	— 1.4	+ 5.0	25.26	25.51
Shoes	22	3,856	90.0	+ 1.4	+11.7	65,945	88.1	+ 5.1	+12.1	17.10	16.73
Leather products, other	7	546	101.1	— 6.4	— 3.2	11,627	93.6	— 6.8	— 8.8	21.29	21.40
Rubber tires and goods	4	940	80.1	+ 0.6	—14.0	27,107	94.4	+ 2.6	—19.9	28.84	28.30
Paper and printing:	57	8,041	91.8	+ 0.2	— 3.4	243,598	105.8	— 1.2	+ 0.4	30.29	30.72
Paper and wood pulp	13	3,651	84.1	+ 1.7	— 5.1	108,292	97.1	— 0.7	— 1.5	29.66	30.33
Paper boxes and bags	6	660	88.8	— 0.3	— 3.4	10,192	105.2	+ 0.5	— 3.8	15.44	15.31
Printing and publishing	38	3,730	102.4	— 1.1	— 1.6	125.114	115.3	— 1.7	+ 2.7	33.54	33.79
Construction and contracting	33	3,696	79.7	—10.8	—22.9	101,970	73.7	— 8.2	—24.0	27.59	28.56

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		June 15, 1928	May 15, 1928	Per cent change	June 15, 1928	May 15, 1928
ALL INDUSTRIES: (46)	479	7,202,744	7,309,960	— 1.5	$.566	$.568
Metal products:	171	3,402,934	3,517,460	— 3.3	.600	.599
Blast furnaces	7	95,767	96,839	— 1.1	.566	.565
Steel works and rolling mills	28	1,730,650	1,854,528	— 6.7	.620	.623
Iron and steel forgings	8	62,428	63,897	— 2.2	.578	.578
Structural iron work	6	78,629	79,266	— 0.8	.590	.568
Steam and hot water heating appliances	11	135,340	128,472	+ 5.3	.608	.612
Foundries	34	327,587	332,216	— 1.4	.607	.602
Machinery and parts	32	395,031	392,078	+ 0.8	.606	.602
Electrical apparatus	14	194,652	182,789	+ 6.5	.505	.519
Engines and pumps	10	149,050	152,216	— 2.1	.596	.597
Hardware and tools	13	201 882	203,830	— 1.0	.521	.466
Brass and bronze products	8	31,918	31,329	+ 1.9	.551	.550
Transportation equipment:	31	986,970	975,490	+ 1.2	.626	.627
Automobiles	6	258,274	250,857	+ 3.0	.646	.643
Automobile bodies and parts	8	344,536	337,702	+ 2.0	.607	.609
Locomotives and cars	9	222,710	223,712	— 0.4	.601	.604
Railroad repair shops	4	97,354	93,840	+ 3.7	.688	.675
Shipbuilding	4	64,096	69,379	— 7.6	.648	.668
Textile products:	73	1,068.511	1,043,713	+ 2.4	.446	.454
Cotton goods	11	66,052	69,376	— 4.8	.479	.479
Woolens and worsteds	10	133,066	123,579	+ 7.7	.447	.461
Silk goods	21	369,834	348.896	+ 6.0	.418	.417
Textile dyeing and finishing	4	26,960	27,158	— 0.7	.485	.475
Carpets and rugs	5	74,661	75,129	— 0.6	.540	.520
Hosiery	6	263,044	261,718	+ 0.5	.493	.524
Knit goods, other	8	52,091	52,757	— 1.3	.405	.405
Men's clothing	.....	.....	.....	.....	.....	.290
Women's clothing	3	21,732	27,388	—20.7	.346	.378
Shirts and furnishings	5	61,071	57,712	+ 5.8	.323	.307

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Concluded)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		June 15, 1928	May 15, 1928	Per cent change	June 15, 1928	May 15, 1928
Foods and tobacco:	47	351,893	348,467	+ 1.0	$.500	$.492
Bread and bakery products	20	113,326	111,222	+ 1.9	.520	.526
Confectionery	5	99,396	101,603	— 2.2	.460	.427
Ice cream	8	52,395	49,824	+ 5.2	.572	.584
Meat packing	9	56,863	56,167	+ 1.2	.542	.540
Cigars and tobacco	5	29,913	29,651	+ 0.9	.350	.341
Stone, clay and glass products:	34	443,220	456,842	— 3.0	.546	.564
Brick, tile and pottery	14	129,996	130,555	— 0.4	.536	.540
Cement	8	194,217	200,366	— 3.1	.535	.538
Glass	12	119,007	125,921	— 5.5	.574	.601
Lumber products:	36	108,733	106,639	+ 2.0	.510	.512
Lumber and planing mills	15	43,371	42,249	+ 2.7	.536	.548
Furniture	17	53,595	53,751	— 0.3	.515	.508
Wooden boxes	4	11,767	10,639	+10.6	.384	.392
Chemical products:	19	292,271	301,727	— 3.1	.599	.584
Chemicals and drugs	11	47,950	49,524	— 3.2	.494	.487
Paints and varnishes	5	44,121	45,870	— 3.8	.547	.546
Petroleum refining	3	200,200	206,333	— 3.0	.636	.616
Leather and rubber products:	28	246,752	254,048	— 2.9	.481	.476
Leather tanning	9	109,390	112,859	— 3.1	.522	.525
Shoes	11	82,271	86,529	— 4.9	.365	.351
Leather products, other	4	8,481	9,203	— 7.8	.519	.525
Rubber tires and goods	4	46,610	45,447	+ 2.6	.582	.582
Paper and printing:	40	301,460	305,574	— 1.3	.590	.588
Paper and wood pulp	10	185,650	186,422	— 0.4	.530	.531
Paper boxes and bags	3	8,432	8,645	— 2.5	.355	.344
Printing and publishing	27	107,378	110,507	— 2.8	.713	.704
Construction and contracting	26	136,613	131,722	+ 3.7	.651	.672

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS—week ended	
		No. of wage earners week ended June 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended June 15, 1928	Index numbers 1923-1925=100				
			June 1928	Per cent change compared with			June 1928	Per cent change compared with		June 15, 1928	May 15, 1928
				May 1928	June 1927			May 1928	June 1927		
Allentown-Bethlehem-Easton	78	22,039	90.9	+ 0.3	— 2.1	$578,653	86.7	+ 0.6	— 8.0	$26.26	$26.1[illegible]
Altoona	14	2,201	.....	+ 3.6	.....	49,955	.....	+ 1.8	.....	22.76	23.11
Erie	11	3,915	99.3	+ 1.2	— 3.8	118,565	100.6	+ 1.3	— 5.1	30.28	30.25
Harrisburg	34	6,539	90.2	+ 0.8	+ 2.5	146,754	91.8	+ 6.3	— 1.2	22.44	21.29
Hazleton-Pottsville	21	4,635	99.4	+ 0.4	— 5.2	99,897	94.4	+ 3.6	— 5.8	21.55	20.89
Johnstown	13	931	97.5	— 1.0	—20.4	24,010	83.3	— 6.8	—23.0	25.79	27.41
Lancaster	30	4,375	99.6	— 4.3	— 8.1	91,331	88.0	— 5.9	— 9.7	20.88	21.19
New Castle	11	5,673	104.4	— 2.9	— 7.8	157,625	95.7	— 8.5	—11.0	27.79	29.50
Philadelphia	246	83,974	83.3	— 3.5	—11.7	2,286,630	76.4	— 2.6	— 9.0	27.2[illegible]	27.02
Pittsburgh	92	59,161	89.5	— 1.2	—11.1	1,639,944	80.9	— 4.4	—11.6	27.7	28.82
Reading-Lebanon	63	20,159	89.9	0	— 0.4	502,998	85.8	— 2.2	+ 0.7	24.95	25.49
Scranton	33	5,038	102.6	— 5.4	+ 0.1	95,179	113.4	— 1.0	+ 2.7	18.89	18.06
Sunbury	27	8,388	65.7	+ 6.3	— 5.4	168,470	64.6	+11.0	— 9.3	20.08	19.26
Wilkes-Barre	21	5,852	75.0	— 0.4	— 6.7	107,688	79.0	— 3.4	—11.5	18.40	19.02
Williamsport	22	4,680	70.9	— 1.9	—15.9	123,207	76.9	— 1.5	+ 1.0	26.32	26.22
York	43	6,165	92.3	+ 2.8	— 4.8	126,233	95.2	+ 5.9	— 1.3	20.48	19.89

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

1928	Fatal	Permanent Disability	Temporary Disability	Total	Fatal	Permanent Disability	Temporary Disability	Total
January	162	135	11,840	12.137	168	280	5,288	5,736
February	146	113	11,799	12.058	136	242	5,677	6,055
March	147	139	12,400	12,686	124	331	5,969	6,424
April	139	100	10,828	11,067	150	262	5,580	5,992
May	362	150	12,891	13,403	170	304	6,670	7,144
June	193	120	12,383	12,696	261	295	7,021	7,577
Total—1928	1,149	757	72,141	74,047	1,009	1,714	36,205	38,928
1927								
January	170	144	14,353	14,667	158	250	4,760	5,168
February	184	154	12,947	13,285	174	363	3,994	4,531
March	163	150	14,182	14,495	174	323	4,945	5,442
April	169	145	12,548	12,862	131	231	6,829	7,191
May	173	139	12,730	13,042	128	202	7,839	8,229
June	186	124	13,317	13,627	186	309	7,531	8,026
Total—1927	2,064	1,665	157,025	160,754	2,001	3,479	69,406	74,886
*Grand Total	30,015	12,021	2,209,833	2,251,869	24,765	25,677	831,563	882,005

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	AWARDED				PAID			
	Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded	Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
January	$1,100,855	$470,921	$237,571	$392,363	$927,633	$297,118	$238,152	$392,363
February	957,996	389,497	220,404	348,095	785,422	215,075	222,252	348,095
March	1,191,947	395,997	380,960	414 990	1,039,980	266,751	358,239	414,990
April	1,280,958	515,488	300,326	465 144	1,017,857	287,900	264,813	465,144
May	1,471,427	554,152	364,691	552,584	1,210,948	321,316	337,048	552,584
June	2,087,979	1,129,187	336,859	621,933	1,174,991	287,174	265,884	621,933
Total—1928	$8,091,162	$3,455,242	$1,840,811	$2,795,109	$6,156,831	$1,675,334	$1,686,388	$2,795,109
1927								
January	$995,376	$528,084	$210,370	$256,922	$867,141	$331,075	$279,144	$256,922
February	1,097,268	504,421	374,696	213,151	746,916	279,197	249,568	218,151
March	979,080	510,805	251,823	216,462	851,925	359,705	275,758	216,462
April	846,197	393,650	204,166	248,381	785,120	290,396	246,343	248,381
May	1,087,132	380,418	268,041	438,673	916,262	211,002	266,587	438,673
June	1,408,339	482,313	312,575	613,451	1,517,144	331,392	572,301	613,451
Total—1927	$13,329,557	$5,772,868	$3,226,464	$4,330,225	$11,697,889	$3,492,763	$3,860,969	$4,330,225
*Grand Total	$143,076,246	$68,881,892	$29,722,144	$44,472,210	$99,694,407	$30,387,615	$24,834,582	$44,472,210

*Since the inception of the Act—January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	12	$26,774	5	$13,287	15	$30,734	14	$24,898	47	$69,998
February	9	23,580	7	17,577	13	27,637	11	20,210	29	47,755
March	8	20,594	11	29,159	20	43,017	20	38,297	69	107,771
April	8	20,418	5	13,526	24	53,369	10	20,218	43	66,264
May	14	38,339	7	17,759	17	36,373	23	44,423	52	87,934
June	15	35,986	7	19,662	22	51,392	16	33,817	40	64,571
Total—1928	66	$165,691	42	$110,970	111	$242,522	94	$181,863	280	$444,293
1927										
January	10	$25,714	8	$20,640	13	$26,759	8	$14,708	34	$49,923
February	19	46,639	9	23,220	28	54,922	18	31,609	77	116,274
March	11	28,164	8	19,545	15	28,105	10	16,724	46	69,564
April	4	10,240	4	10,143	15	30,905	10	16,763	32	46,858
May	9	23,060	7	17,291	15	29,728	10	18,624	50	77,095
June	8	19,647	3	7,714	19	38,246	22	39,747	47	72,249
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand Total	1,315	$2,911,268	936	$2,089,896	2,958	$5,407,721	1,811	$3,009,410	7,328	$10,208,704

*Since the inception of the Act—January 1, 1916.

**Multiple losses separated respectively.

**PERMANENT INJURIES—*(Continued)*

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
January	118	$37,612	93	$16,432	20	$4,248	3	$13,588
February	93	33,824	99	21,192	15	5,629	5	23,000
March	99	38,145	118	25,709	10	4,461	18	73,807
April	119	48,496	85	18,961	9	4,969	13	54,105
May	116	50,440	86	19,268	22	10,120	13	60,035
June	148	63,752	91	20,807	13	7,387	7	39,485
Total—1928	693	$272,269	572	$122,368	89	$36,814	59	$264,020
1927								
January	100	$34,173	99	$19,164	12	$7,227	3	$12,062
February	154	54,073	97	18,274	7	2,451	6	27,234
March	148	45,955	130	23,366	7	1,671	4	18,729
April	113	38,669	88	14,417	6	3,816	7	32,355
May	95	31,829	95	18,582	7	3,296	10	48,536
June	143	44,786	99	19,408	6	3,588	19	67,190
Total—1927	1,502	$509,006	1,202	$226,122	120	$51,089	89	$370,067
*Grand Total	7,456	$2,581,304	6,238	$1,182,811	453	$255,642	496	$2,075,388

*Since the inception of the Act—January 1, 1916.

**Multiple losses separated respectively.

The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING JUNE, 1928

Cause	Total of All Industries		Construction and Contracting						Coal Mining				Other Quarrying and Mining Than Coal Mining		Manufacturing																			
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous				Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	193	12,503	7	876	8	323	5	473	50	2,218	39	1,670	4	195	36	4,370	3	191	5	391	1	134	6	399	1	135	1	324	1	197	2	211
Working machinery and processes	6	1,131	..	24	..	21	..	14	..	43	..	79	..	10	6	825	..	10	1	33	..	70	..	4[illegible]	..	29	1	80	..	58	..	76
Boilers and pressure apparatus	...	13	..	1	..	.....	..	.....	..	1	..	2	..	.....	..	5	..	1	..	1	..	.....	..	1	..	1	..	.....	..	.....	..	.....
Pumps and prime movers	1	28	..	1	..	2	..	1	..	6	..	4	..	.....	1	9	..	4	1	.....	..	.....	..	1	..	.....	..	1	..	1	..	.....
Transmission apparatus	...	10	..	.....	..	1	..	.....	..	1	..	1	..	.....	..	7	..	.....	..	1	..	1	..	1	..	.....	..	1	..	.....	..	1
Elevators and hoists	1	76	..	5	..	2	..	3	..	13	..	16	..	1	..	19	..	1	..	2	..	.....	..	2	..	.....	..	1	..	2	..	3
Cranes and derricks	3	194	..	17	1	12	1	24	..	6	..	7	..	1	1	110	..	4	..	3	..	.....	..	1	..	1	..	3	..	.....	..	.....
Cars and engines	23	910	..	.....	..	5	..	5	4	283	7	380	..	20	1	60	..	2	..	12	..	.....	..	2	..	1	..	1	..	2	..	.....
Motor vehicles	16	519	..	21	2	29	2	39	..	1	..	5	..	3	4	161	..	13	..	11	1	1	2	36	1	.....	..	6	..	9	..	4
Other vehicles	4	94	..	4	..	5	..	7	..	.....	..	.....	..	.....	2	34	..	1	..	2	..	.....	1	16	..	1	..	10	..	.....	1	.....
Hand trucks	1	177	..	11	..	4	..	6	..	4	..	.....	..	3	1	115	..	1	..	29	..	1	..	11	..	6	..	5	..	6	..	4
Water and air craft	3	6	..	.....	1	.....	1	2	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	3	2,750	..	206	..	63	..	104	..	451	..	233	..	48	2	1,100	..	48	..	138	..	18	1	91	..	32	..	69	..	44	..	40
Hand tools	...	1,192	..	96	..	35	..	37	..	235	..	190	..	29	..	37	..	16	..	18	..	8	..	26	..	6	..	53	..	16	..	8
Electricity	13	86	..	2	..	.....	..	1	1	15	1	27	..	.....	4	24	..	2	..	2	..	.....	2	2	..	2	..	.....	..	1	..	.....
Explosive substances	29	158	..	8	..	4	..	3	16	59	10	16	..	3	..	21	..	7	..	.....	..	.....	..	1	..	1	..	.....	..	.....	..	.....
Hot and corrosive substances	3	459	..	46	..	14	..	13	..	19	..	14	1	2	1	260	1	20	..	18	..	3	..	26	..	8	..	3	..	6	..	9
Falling objects	52	1,749	1	73	1	36	..	54	27	649	20	487	1	36	2	306	..	12	..	31	..	4	..	17	..	10	..	30	..	14	..	10
Falls of persons	22	1,668	4	193	2	52	..	87	2	202	..	100	2	28	5	555	2	36	2	49	..	20	..	72	..	28	..	38	..	25	1	37
Stepping upon or striking against objects	...	807	..	148	..	28	..	61	..	137	..	50	..	3	..	242	..	8	..	28	..	8	..	19	..	6	..	17	..	11	..	15
Miscellaneous	13	476	2	20	1	10	1	12	..	93	1	59	..	8	6	143	..	5	1	13	..	.....	..	26	..	3	..	6	1	2	..	4

*F.=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING JUNE, 1928—*(Concluded)*

Cause	Manufacturing—(Concluded)																		Transportation and Public Utilities						Other Industries											
			Metals and Metal Products																								Trading									
	Total		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Retail		Wholesale		State and Municipal		Miscellaneous	
	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	15	2,321	..	57	5	485	2	479	5	885	3	226	..	189	1	67	11	418	3	143	11	161	..	119	4	536	2	140	12	342	1	519
Working machinery and processes	4	392	..	2	..	65	..	93	3	204	1	20	..	8	..	29	..	.....	..	2	..	2	..	11	..	35	..	6	..	5	..	54
Boilers and pressure apparatus	...	1	..	.....	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	1	..	.....	..	2	..	1
Pumps and prime movers	...	2	..	.....	..	.....	..	.....	..	2	..	.....	..	.....	..	.....	..	.....	..	.....	..	2	..	.....	..	.....	..	.....	..	.....	..	3
Transmission apparatus	...	2	..	.....	..	.....	..	1	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Elevators and hoists	...	7	..	.....	..	1	..	1	..	2	..	3	..	.....	..	1	..	1	..	.....	..	.....	..	1	1	5	..	6	..	.....	..	4
Cranes and derricks	1	98	..	2	..	30	..	22	1	36	..	7	..	1	..	.....	..	6	..	.....	..	2	..	.....	..	2	..	2	..	2	..	3
Cars and engines	1	39	..	2	..	8	..	2	..	6	1	21	..	.....	..	1	10	131	..	13	..	1	..	.....	..	7	..	4	1	1	..	.....
Motor vehicles	...	78	..	1	..	7	..	1	..	10	..	3	..	56	..	3	..	2	..	22	2	9	..	2	1	70	1	15	4	85	..	55
Other vehicles	...	4	..	1	..	.....	..	1	..	2	..	.....	..	.....	..	.....	..	.....	..	.....	1	9	..	.....	..	10	..	1	1	13	..	11
Hand trucks	1	51	..	3	..	7	1	11	..	25	..	5	..	.....	..	1	..	18	..	.....	..	1	..	1	..	8	..	3	..	2	..	1
Water and air craft	...	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	2	..	.....	1	.....	..	.....	..	.....	..	.....	..	.....	..	2
Handling objects—by hand	1	604	..	17	1	142	..	142	..	241	..	41	..	21	..	16	..	102	..	42	..	38	..	30	1	138	..	54	..	43	..	98
Hand tools	...	217	..	1	..	35	..	30	..	74	..	31	..	46	..	6	..	50	..	9	..	21	..	14	..	40	..	5	..	23	..	34
Electricity	2	15	..	.....	..	8	1	3	1	2	..	1	..	1	..	.....	1	.....	..	6	6	5	..	.....	..	2	..	.....	..	1	..	3
Explosive substances	...	12	..	.....	..	2	..	3	..	3	..	.....	..	4	..	.....	..	.....	..	3	..	3	..	3	..	11	1	3	2	10	..	11
Hot and corrosive substances	...	167	..	7	..	32	..	62	..	46	..	10	..	10	..	.....	..	9	..	3	..	4	..	19	..	13	..	3	1	12	..	28
Falling objects	1	178	..	6	1	58	..	33	..	59	..	16	..	6	1	.....	..	16	..	6	..	15	..	3	..	18	..	8	..	16	..	26
Falls of persons	...	242	..	8	..	48	..	32	..	87	..	49	..	18	..	8	..	56	3	21	1	39	..	22	1	112	..	22	1	70	1	109
Stepping upon or striking against objects	...	129	..	6	..	22	..	23	..	52	..	12	..	14	..	1	..	12	..	9	..	5	..	7	..	45	..	4	..	19	..	37
Miscellaneous	4	83	..	1	3	20	..	18	..	33	1	7	..	4	..	1	..	13	..	7	..	5	..	6	..	19	..	4	2	38	..	39

*F.=Fatal. N. F.=Non-fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	162	11,975	12,137
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*308*	*23,887*	*29,195*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	163	14,332	14,495	147	12,539	12,686
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*517*	*41,930*	*42,447*	*455*	*36,426*	*36,881*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*686*	*54,623*	*55,309*	*594*	*47,354*	*47,948*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	173	12,869	13,042	362	13,041	13,403
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*859*	*67,492*	*68,351*	*956*	*60,395*	*61,351*
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	186	13,441	13,627	193	12,503	12,696
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,045*	*80,933*	*81,978*	*1,149*	*72,898*	*74,047*
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724			
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,221*	*93,481*	*94,702*			
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,393*	*107,141*	*108,534*			
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	163	13,279	13,442			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,556*	*120,420*	*121,976*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	163	13,564	13,727			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,719*	*133,984*	*135,703*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	193	13,087	13,280			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,912*	*147,071*	*148,983*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	152	11,619	11,771			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,064*	*158,690*	*160,754*			

NOTE:—The figures in italics represent the cumulative totals by months under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building,
Bureau of Bedding and Upholstery,
400 North Third Street,
Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building,
State Workmen's Insurance Fund,
Fourth and Blackberry Streets,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
413 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
306 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
1713 Hazleton National Bank Building.

Johnstown: .....Bureau of Inspection,
427 Swank Building.
State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

Lock Haven: .....State Workmen's Insurance Fund,
214 Vesper Street.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
108 North Fifth Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
418 Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: .....State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.

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ELECTRICITY AS A SAFETY FACTOR IN INDUSTRY AND THE HOME*

By John Price Jackson†
The New York Edison Company

Electrical power in the shops has been responsible for the removal of innumerable hazards, which would have resulted in an awful toll of accidents had industry developed to its present magnitude with the use of mechanical power alone. Thus, with the introduction of electrical power, miles of shafting and belts and innumerable gears, clutches, etc., were displaced, and with them went great hazards to life and limb. The use of electricity, with its associated magnetic properties, makes possible the control of the power used for driving industrial machinery with assurance and delicacy, and at any number of points, near by or remote. This is well illustrated, for instance, in the great modern newspaper presses and in much apparatus used for handling materials. The possibility of multiple points of control is an especially valuable adjunct to safety in large, complicated trains of machinery having many movements, or which may be best operated at a distance. The use of electrical illumination has been also most effective in the prevention of accidents in shops because of its ready use for providing satisfactory general lighting and because it can be applied intensively to specific parts of apparatus where work is being done.

Reduction of Fatigue

Another important element which has made the use of electrical power helpful, from the standpoint of accident prevention, is the fact that it has reduced human fatigue in industry. Experience indicates that fatigue is a prolific cause of accidents. It is estimated that shop workers have available today for their use about 4½ hp. each; this represents many times as much power as a man can exert by the use of his muscles, and it can be put to work by touching a button or throwing a switch. As a result, in a large proportion of our present-day industrial operations the man becomes a director of power rather than a source of power, and he performs his day's work with much less fatigue than was possible half a century ago, when a larger percentage of our industrial and construction operations were, perforce, carried on by the use of man-power alone.

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*Safety Engineering, July, 1928.
† Commissioner of Pennsylvania Dept. of Labor and Industry, 1913 to 1919. Manager, Personal Bureau, The New York Edison Company.

Though not specifically dealt with here, it should be mentioned that in mines, quarries, and most other work places the use of electrical power has made possible a reduction in accidents which more or less parallels that in workshops.

In the home, replacing the kerosene lamp by electric light has removed a hazard which was a common cause of fire and of injuries resulting from fire. The use of effective illumination has also been equally helpful by making possible the proper lighting of stairways, attics, cellars, and other places in the house which have been prolific sources of accidents. Electric lights, electric household appliances, and gas for heating and cooking have eliminated drudgery in the home as effectively as the electric motor has relieved the old-time drudgery of the shop. A similar comment can be made with regard to our office buildings and places of commerce.

The Highway

Probably second to no other advantage in the use of electric power has been adequate electric illumination of our streets and highways. In the old days when those going out on a dark night were compelled to carry a candle lantern, or later a kerosene lantern, the hazards they faced were great. This was much relieved in the cities by the adoption of gas street lighting, but with the coming of high power electric lamps in our city streets, and their use extending further and further along the main boulevards into the rural districts, the safety of the road at night has been increased enormously. Of course, with the astounding growth of the great new automobile industry the hazards caused by traffic have developed rapidly; but here again the use of properly shaded and efficient electric headlights and the widening and improved general illumination of our streets and roads have created counter safeguards without which modern heavy automobile traffic at night would be dangerous and difficult.

On the Farm

Many farms have been electrified. In this case the greatest remover of hazards to life and limb has been electric light, although advances have been made by the adoption of electrically driven, easily controlled farm machinery which has reduced farm hazards and accident-inviting drudgery. The electric power industry is today putting forth its best efforts to extend the use of electric power on the farm, and with the growth and inter-connection of electrical distributing systems, which involve the building of numerous long transmission lines through rural districts, farm electrification is becoming more and more feasible. The

electrical farm load in California is now a substantial part of the central station business of that state, while in New York and other states it is becoming an element of mounting importance. Statistics from the National Electric Light Association show that there are something more than 227,000 electrified farms in twenty-seven states, including New York, which has 35,600 counting only those that obtain their power from central stations. There are a few others which use isolated plants of their own.

Insulation and Voltage

The insulation for electric wires today is given the utmost attention in order that it may be substantial and restrain the electricity to the paths for which it is designed. This careful application of insulation prevents the power from leaking into wrong channels where it may be converted into heat and cause fires. Such insulation and various forms of barriers also serve to prevent people from coming into direct contact with electrified wires and appliances. This latter provision is important since the human body is a reasonably good conductor of electricity, and, if it comes in contact with a live wire, it may form part of the conducting path through which current may flow with the resultant danger of shock and injury.

The danger of electrical power to the human being is more or less dependent upon the voltage of the electric circuit, just as the injury which may be inflicted by a material object is dependent upon the force applied. Thus, a man falling under the wheel of a heavy truck will almost certainly be badly crushed, and, likewise, a man touching a high voltage electric transmission line is apt to receive a serious shock. On the other hand, though a person who is hit by a bicycle may be seriously injured, the chances are he will escape without hurt; and similarly a person may ordinarily touch the low voltage lighting circuit of a home or a shop without receiving a serious shock which will do injury; but in either case there is always the chance that the conditions may be such as to cause serious results.

This being the situation, the electrical industry takes precautions to locate and protect high voltage lines and equipment so that only skilled, experienced men appointed for the purpose can go near them, and then only under safe conditions. In shops and residences where the voltages are low, the wires ordinarily are carried in conduits which are beyond reach, or, where such arrangements cannot be made, exposed wires and appliances are insulated in such a way that contact cannot be made with the metal conductors themselves.

Circuit Breakers and Fuses

In shops or houses burns sometimes result to amateurs or untrained workmen, when making repairs, from the careless placing of a metal object, such as a screw driver or a pair of pliers, across uncovered parts of a circuit without having disconnected it from the source of power. This causes a "short circuit" of low resistance across which the voltage of the system may force an abnormally heavy current. This current may heat the metal object and wires near the points of contact to incandescence and may even melt them, or it may cause an electric arc. However, all circuits or branches of a circuit such as the wiring in a house are automatically freed from the sources of electrical power when a short circuit occurs, or the wires are otherwise overloaded by circuit breakers, that is fuses designed and installed for that purpose.

Shop and House Safety Provisions

For use on lights and appliances in residences and stores the voltages are low, commonly 110 or 115 volts, and in shops 110 to 220 or so volts while wires, switches, and other controls, and the electrical parts of shop machinery itself are all carefully insulated or protected in a way to make accidental contact almost if not entirely impossible. However, accidents do occur now and then especially in shops, though they can be avoided entirely by reasonable precautions. Compliance with the following conditions is most essential for shop safety:

1. The wiring and apparatus should be of acceptable quality and should be installed in the proper manner. The installations should be inspected and approved by a representative of the Board of Insurance Underwriters.

2. Workmen employed upon the maintenance of electrical equipment should fully understand their work and how to avoid hazards.

3. Persons using electrically equipped machinery should have carefully explained to them the methods which should be employed, and the dangers which may arise from improper acts. They should be as familiar with the electrical hazards of their equipments as they are with those of the cutting tools and other appliances.

Available statistics show that the largest number of accidents of an electrical character in shops are caused, in their order of importance, from the following:

1. Negligence such as carelessless, heedlessness, and more particularly absent-mindedness on the part of the worker.

2. Employment of untrained men for repair work.

3. Failure of those using electrical apparatus to learn the proper method for using it and how to avoid dangerous practices.

4. Use of unsafe materials, appliances, and poor installations.

These causes of accidents are similar to those which result in other phases of industry, and as in all industries, the first one named is much the largest. To reduce this first class of accidents—negligence—requires proper safety organization and safety instruction of the same general character as is required for the reduction of other types of industrial accidents.

One special element in the installation of electrical equipment worthy of mention is the desirability of grounding metal frames of stationary apparatus of 150 or more volts potential which contain electrical conductors. By this means, if the conductors, in the course of use, come in contact with the frame of a piece of apparatus they are brought to the same voltage as the ground, and persons touching the frame will not receive a shock. If such grounding is not done the frames may become electrified in the case of faulty insulation, and danger may result. It is now the practice to carefully ground motor frames, transformer cases, and other metallic parts of stationary electrical apparatus as are not normally intended to carry current.

In an electrified house today are to be found portable lamps, toasters, coffee urns, sweepers, and washing machines. Many of these articles are attached to the lighting circuits of the house by means of plugs placed in receptacles in the wall, from which flexible cords lead to appliances. When the appliances and cords are of approved design and material, and in good condition, there is no danger of either fire or electric shock; but there are appliances and cords on sale which are not approved and which are distinctly dangerous. The insulation of a poor electric cord is apt to be thin and brittle. Therefore, after use the insulation may break down and the wires get together with the result that a short circuit is caused, which in turn may set the cord on fire and possibly the house; or the wires may have become bare with danger of shock to the person using the appliance. Further, poorly made electrical appliances may have their electrical units improperly insulated from their frames in such a way that the latter may come in contact with the live circuit. In this case a person using the poor appliances may receive a shock, and if he happens to be standing in a very wet place, the shock may be serious.

Therefore, it is desirable for all who use electrical appliances to purchase only those which are approved by someone having adequate knowledge of the subject such as experts in the light and power business. The users should carefully observe the condition of the apparatus

from time to time. If a flexible cord shows signs of fraying or breaking of the insulation it should be replaced, and if an appliance gives indication that it is out of order, by not working properly or by causing a shock, it should be sent at once to a competent repairman to be put in proper condition. Under no circumstances should untrained persons, either in houses or shops, or elsewhere endeavor to repair wires or apparatus connected to live circuits. In both shops and residences, if for any reason temporary circuits are required, they should be installed only by qualified persons who are trained for this work. Likewise inexperienced persons should not put fuses of larger current carrying capacity into a circuit than that for which it was originally rated. Failure to comply with these last two injunctions has often caused trouble.

Electric Power Systems

When electric power systems began with the opening of Edison's Pearl Street Station in New York City, in 1882, comparatively little was known of the requirements for insulation and of electrical hazards, but the voltages were low. However, the work of developing safely insulated systems has progressed steadily as the industry has grown, and, with the introduction of alternating current and higher and higher transmission voltages, modifications have been made to meet the changing requirements. This work has been so effectively carried on that the electrical industry, although dealing with enormous quantities of power has a surprisingly small number of accidents in the ranks of its own quarter of a million workers. When it is remembered that electrical power normally cannot be detected by the senses of sight, hearing, or smell, and is transmitted at high voltages to points of distribution—where it is reduced for introduction to customers' premises—the electrical industry is to be commended on the fact that its accident frequency, as shown by a recent canvass of a large number of industrial establishments, is lower than the industries of mining, woodworking, packers and tanners, construction, paper and pulp, quarries, and metals.

Furthermore, the industry in the last three years has materially reduced its accident frequency. As an illustration of what is being done in this industry, one large corporation in the course of about two years has more than halved its frequency and severity rates, and other corporations are doing equally well. It might be mentioned in this connection that most of the accidents which the industry experiences are of a mechanical rather than of an electrical character.

Factors in Excellent Safety Record of the Industry

The excellent record that the industry has made in the past in safeguarding its own employes and the public, and the improvements which are still going on in accident records, have been accomplished by careful, scientific, and practical study with a view to eliminating hazards, providing protective and safe practices, and also by the creation of effective safety organizations among its own employes.

The safety organizations are in essence similar to those in other industries, including the central, departmental, and workmen's safety committees; the use of posters, safety meetings, and other educational mediums; and supply to the workman himself of every facility in the way of goggles, rubber gloves, protectors for live circuits, insulated tools, and safe working appliances of many kinds. As a rule, workmen are not permitted to work on electric lines while attached to sources of high voltage. Careful and exhaustive tests are made to be sure that lines on which work is to be done are dead, that instructions for work upon the lines are checked and followed explicitly. It is largely because of these carefully developed precautions that electrical injuries are relatively so few in number.

The industry has long been engaged in preparing and maintaining adequate safety rules. Today there are two effective standards bearing upon electrical safety. One is the "National Electric Safety Standards" and the other the "National Electrical Code" of the National Fire Protection Association. Both of these have been approved by the American Engineering Standards Committee. From these standards individual electric companies derive the rules that govern their personnel.

Earlier it was noted that in the electrical power industry, as in shops, by far the greatest number of accidents occur through negligence, and it is to combat this difficulty that the industry is today devoting much of its time. The work has met serious obstacles, here as elsewhere, from the attitude of the "hard-boiled." The condition caused the *Electrical World* recently to make this statement: "It should be remembered that a great many of the men in the electrical industry who are most liable to accidents take a certain amount of pride in being 'hard-boiled' and it takes 'hard-boiled' methods to make them take care of themselves." The difficulty of the "hard-boiled" is quite common throughout all industry, but the ice has been broken in the electrical industry and its entire group of employes and supervisory officers are now quite unanimously at work to overcome, by education and all means available, the human weaknesses that are prolific in producing accidents.

Resuscitation Education

Although the electrical industry has been giving most of its attention to the more important problem of prevention of electrical accidents, it has also been devoting itself to the problem of resuscitating those who have stopped breathing because of electrical shock. Today, throughout the country, practically all electric light and power companies formally teach their employes the Schaefer Prone Pressure Method of Resuscitation and through this means many persons who have been shocked to unconsciousness have been restored to life; and the electrical and gas industries have been foremost influences in obtaining a wide adoption by the Government and other important agencies of a uniform manner of applying this method.

These industries are using their offices to aid in having the police of the country, the firemen, all connected with hospitals, and others taught the Prone Pressure Method. Undoubtedly, it should be taught in all of our shops and particularly to those who are working upon the maintenance of electrical shop equipment or using such equipment. Indeed, everybody in the country should be able to use it. The New York State Department of Labor is aiding greatly in this work by having had prepared motion picture films which pictorially show the Prone Pressure Method as it is used for electric shock, asphyxiation, drowning, and other accidents where respiration is suspended.

From the foregoing statements the following conclusions may be reached. First, that electrical power has been an unexcelled medium for the reduction of accidents—one of the essentials to America's present large and efficient production; second, that electricity can be applied to the shop without fear of accidents when suitable materials and apparatus are used in the installation, and the employes using them are properly trained; and, third, that electricity improves the safety conditions of the home or farm and may be used without fear of accident if the wiring and appliances are approved, and if the occupants of the houses or farms give reasonable attention to see that their apparatus is kept in proper condition.

THE PENNSYLVANIA INDUSTRIAL SAFETY CAMPAIGN AIMS TO SET A MARK FOR THE FUTURE

By Harry D. Immel
Director, Bureau of Inspection

A safety campaign of a full twelve months extent, embracing every industry in the state with the exception of agriculture and coal mining, has been chosen by the Bureau of Inspection of the Pennsylvania Department of Labor and Industry as a means of introducing a new plan of factory inspection. The campaign will start January 1, 1929. Its general aim will be to close the present decade with so substantial a reduction in the annual industrial accident record as to give every agency for promotion of safety a new inspiration and a new obligation for the 1930's. The scope of the proposed safety campaign and the Bureau's new inspection plan are a sufficient departure from past methods of accident prevention through state agencies to guarantee that they will attract wide attention.

Factory inspection, the original conception of the Department of Labor and Industry, has always been very much a matter of routine. Its chief objective has been the application of mechanical safeguards as a means of accident prevention. Recognition of the fact that mechanical safeguards can prevent only a small proportion of accidents to industrial workers is not particularly new. But up to this time the state has continued to devote its efforts mainly to that phase of safety promotion. Inspections have been made under a block system which required visits to all establishments in the order of their location in any territory without regard for the relative need of those establishments for visitation. The amount of waste effort involved in that practice need not be dwelt upon.

Study of the problems brought the conviction that some means must be found to apply inspection, and to give assistance where most needed. The first step was to find some means of ascertaining where this special need existed. The best indicator of that need obviously was the establishment's own accident record.

The next move was to determine how to obtain those individual plant records. In the Bureau of Compensation of the Department of Labor and Industry is filed a record of every lost-time accident that occurs in Pennsylvania industry. Heretofore those records were utilized only for Compensation Bureau purposes, for the preparation of general accident statistics, and for special studies of certain types of accidents.

Here was available exactly the data needed by the Bureau of Inspection for the intelligent direction of its efforts. A conference between W. H. Horner, Director of the Bureau of Compensation, William J. Maguire, Director of the Bureau of Statistics, and the Director of the Bureau of Inspection developed the entire feasibility of preparing individual plant accident records for use of the Bureau of Inspection. The plan received the immediate approval of Secretary Charles A. Waters, who authorized the necessary expansion of the Bureau of Statistics.

The new inspection plan will become effective in the last quarter of the present year, but will not be fully developed until next January, when the accident reduction campaign begins. Under the new inspection plan there will be placed monthly in the hands of each of the nine supervising inspectors of the Bureau of Inspection a complete list of the lost-time accidents of each industrial establishment in his division reported to the Bureau of Compensation in the previous month. Those lists will be entered on cards in the supervising offices as a permanent accident record of each establishment. They will indicate at a glance what concerns are having more than an average number of accidents. Further data available in the accident reports should give the supervising inspector seated in his office almost enough information to determine exactly what is the matter in that factory. But that will be only a beginning. Inspectors will visit the establishments, make personal observations, and discuss safety needs with employers or their representatives. The definite purpose of these visits will be to establish in the concern a consciousness of its need of more attention to safety and to have assigned to supervisory persons in the concern a responsibility for safety and to have brought to individual employes their own personal obligations to be safe workers.

The new inspection plan will not especially stress mechanical safeguarding. Pennsylvania industry today is largely guarded mechanically. In recent years it has not been at all difficult to obtain the coöperation of employers in mechanical safeguarding, even though it was realized that the contribution of such guards to safety was not alone very considerable. The Bureau of Inspection will continue its routine of obtaining compliance with mechanical safeguarding requirements. But mainly the new inspection plan aims to make of each individual concern a safety factor in itself. It aims to develop in the individual concern a study and solution of its individual accident problems. It aims to leave each concern which has had the Bureau's help in position to contribute its share to the reduction of Pennsylvania's industrial accident toll.

The safety eampaign proposed for 1929 will be wholly educational. Every bureau in the Department of Labor and Industry will contribute to it. Every organization and every ageney in the state interested in labor or in industry, every eivie and every safety organization will be invited and urged to participate. Endorsements of sueh organizations as the Pennsylvania Federation of Labor and the Pennsylvania Manufacturers' Association will be sought. The plan has already been presented to the executive eommittee of the Pennsylvania Federation of Labor and favorably received. Local labor units and local manufacturers' associations ean do much to advanee its suecess. Individual plants and speeial industries having safety organizations will be invited to conduet annual safety eampaigns of their own simultaneously with the general eampaign.

The Department, through the Bureau of Inspeetion, invites at this time suggestions of details whieh might add to the sueeess of the undertaking. As at present visioned, the plan has grown to be more than the Bureau of Inspeetion's eampaign, or more than the Department's campaign. It is to be the greatest collective drive ever made for safety in Pennsylvania. Those who are giving their efforts to its development see in it the foundation for a lasting benefit not only to labor and industry, but to the whole Commonwealth. In this great industrial state anything that touehes industry beneficially is bound to contribute to the good of all. To whatever extent the appalling annual easualty list of industry can be redueed, to that extent the welfare of the Commonwealth will have been promoted.

INDUSTRIAL BOARD

The following rules and interpretations were approved by the Industrial Board at its meeting, July 18, 1928:

Rules

Rule 182, paragraph (1) of the scaffold regulations amended to read as follows:

(1) (A. I.) No person shall be permitted to ride on the car of a hoist except under the following conditions:

1. The car frame shall be of all steel construction and shall be fitted with substantial car safeties located under the car platform which are capable of holding the car at any point of its travel.
2. The car safeties shall be actuated by a centrifugal speed governor and designed to bring the car to a gradual stop within a distance of 8 ft. but not less than 6 ft. The speed governors shall be set to operate before the speed of the car exceeds one hundred twenty-five feet per minute.
3. Spring bumpers shall be installed and shall be capable of reducing the velocity of the car at a maximum rate of 64.4 ft. per second with a load of 150 lbs. descending at full speed.
4. Bumpers shall be located to strike the center sill or girder of the car.
5. The car enclosure shall comply with paragraphs (d) and (e) of this rule.
6. Guide rails for the cars may be of iron or steel. The lower ends of guide rails or guide posts shall be securely anchored or embedded to suitable footings and shall be securely fastened to the hoist structure at points not in excess of 10 ft. apart and be reinforced by steel midway between such fastenings. Where guide rails are anchored at distances less than 8 ft. apart no other supporting is required. Guide rails, if of T shape, shall have a uniform weight of not less than 7 lbs. per lineal foot. If guide rails are tubular they shall have a uniform weight of 5 lbs. per lineal foot and the car safeties shall be made to conform to the same shape as the guides and safeties made to grip at opposite sides of guides.
7. The number of persons permitted to ride at any one time shall be based on the ratio of one person to 3 sq. ft. of floor area.
8. Signal systems shall be provided and used. They shall be so installed and connected to shaftway gates or doors as to be inoperative when any gate or door is in an open position.

This amendment providing a hoist for workmen was approved by the Industrial Board because of the advisability of men reaching their places of work, particularly on high buildings, without being obliged to walk up stairways, ladders, or ramps.

The desirability of this amendment was impressed upon the board by the contractors as well as by the workmen. On account of the ever increasing size and height of buildings greater inconvenience and discomfort to the workmen and expense to the contractors was brought about by the men being compelled to walk to and from their places of work in the building. In many high buildings a period of approximately fifteen minutes over and above the hours of employment was allotted to employes to reach their work. At one place a contractor estimated that it cost him forty dollars a day to get his employes from the ground to their places of work on the building under construction. An idea of the extent of this hardship is shown from the fact that there are approximately seven buildings under construction in Pittsburgh and eleven in Philadelphia, each more than twenty stories in height.

To insure the safety of men riding on these hoists, the hoist will be provided with far greater safety features than those used for handling ordinary building materials.

Interpretation

Interpretation of the Freight Elevator Requirements was rendered as follows:

> When loads handled on elevators require such overhead clearance that vertical landing gates are impracticable it will be permissible to install horizontal collapsible landing gates provided that approved locking devices are also installed and interlocked with the gates.

This interpretation was found necessary because a certain firm needed all their overhead space to load and unload machinery on the elevator. It was considered that a horizontal sliding gate in such instance possessed equivalent safety to a vertical gate which would constantly be interfering with the load handled and possibly involve frequent replacement because of breakage.

The following devices were approved by the Board at its meeting, July 18, 1928.

Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.—Vacuum suction device for grinders.

DeVry Corporation, Chicago, Illinois—Type "G" Motion Picture Projector.

THEY PUT SAFETY FIRST*

Outstanding Records of Pennsylvania Industry Assembled by the Bureau of Inspection

Lycoming Rubber Company, Williamsport, manufacturers of rubber footwear—Ten lost-time accidents in 1927; number of employes, 1,592; number of working days, 253.

United States Sand Paper Company, Williamsport, manufacturers of sand paper—Four lost-time accidents in 1927; number of working days, 305; number of employes, 74.

Williamsport Furniture Company, Williamsport, manufacturers of bed room furniture—Four lost-time accidents in 1927; number of working days, 306; number of employes, 185.

The Electric Storage Battery Company of Philadelphia, with an average of 1,692 employes in 1927, worked 4,683,714 man-hours with 22 lost-time accidents.

The Matthews Conveyor Company, of Ellwood City has had no accidents on punch presses since March 16, 1927, and gives a large share of the credit to safetics installed on machines. Since March 1, 1928 there have been two lost-time accidents in the Stamping Department, though not caused by presses. The plant has 250 employes.

The plant of the Chicago Pneumatic Tool Company at Franklin credits a steady reduction in accidents since 1925 to the activity of its safety committee organized in that year.

The Corry-Jamestown Manufacturing Corporation of Corry, has a clean record for accidents in 1927 except for the case of one employe who sustained a sprained ankle while lifting. This plant has an active safety committee which has developed a number of successful machine guards.

The Midvale Steel Company, at Philadelphia, on May 26, 1928, completed a run of 92 days without a lost-time accident. The average number of employes is 1,800. Last year the Midvale plant had 29 lost-time accidents, and its best no-accident record was 98 days.

The United States Cast Iron Pipe and Foundry Company, at Scottdale, on May 1, 1928, had reached 102 days without a lost-time accident, with an average of 1,100 employes.

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*This will be a monthly feature in LABOR AND INDUSTRY. Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication. Address Director, Bureau of Inspection, Department of Labor and Industry, Harrisburg, or your Divisional Supervisor of the Bureau.

The Pittsburgh Steel Company, at Monessen, on May 1, 1928, had reached 20 months without a fatality, with an average of 4,000 men employed.

The Keystone Forging Company, of Northumberland, with 77 employes, had 3 lost-time accidents in 1927.

The West Penn Power Company, at Springdale, with 260 employes on May 24, 1928, had totaled 120 days without a lost-time accident, and was still going.

The American Steel and Wire Company, at its Farrell plant can show an accident decrease of 74.48 per cent in the last 8 years. In 1920 the accident record at the Farrell works was 2.39 per hundred men. In 1927 the record was .61.

Mr. A. S. Knoizen, Superintendent of the Joy Manufacturing Company, at Franklin, reports that in 1925, before a safety committee was organized, his plant had 94 accidents for an average of 72 employes. In 1927 there were 20 accidents of a maximum lost time of not more than one-half day, except for one which caused the victim 5 days of lost time. The plant had no lost-time accidents in 1928 up to May 12th.

The Steel Car Forge Company, of Ellwood City, with an average of 234 employes, had 10 lost-time accidents in 1927.

The Climax Manufacturing Company of Corry, with a total of 12,260 days of 9 hours worked in 1927, reports one lost-time accident.

The Emery Manufacturing Company, of Bradford, reported on May 21, 1928, that up to that time, it had no lost-time accidents in 1928.

The Franklin Pottery, Inc., of Lansdale, had two compensable accidents in 1927 and 3 others that caused a total of 4 days lost time. There were 250 employes. From January 1 to June 1, 1928, this concern had no accidents.

The Safeguard Check Writer Corporation, of Lansdale, had one lost-time accident in 1927 among 99 employes in 282 working days. The single accident in 1927 was caused by sprained ankle. The plant had no accidents in the first 5 months of 1928.

The Harkness and Suhr Planing Mill, at Wellsboro, with 20 employes, had one lost-time accident between January 1 and June 1, 1928.

The Corning Glass Works, at Wellsboro, manufacturers of electric light bulbs and glass tubes, has 155 employes and is in operation 24 hours per day and practically 7 days per week. From January 1, to June 1, 1928, the plant had no lost-time accidents, with the record still going.

The All-Wear Shoe Company, Catawissa, manufacturers of children's shoes—Accident record for 1927, 87 employes working 300 days, no lost-time accident.

The Clifton Yarn Mills, at Clifton, with 150 employes report no lost-time accidents in the last 6 months.

The Chessauqua Silk Company, Upland, with 160 employes, and a safety organization composed of the Manager and the Weaving and Winding Department foremen, reports 3 lost-time accidents in 306 working days in 1927. The mill had one lost-time accident in 1928 up to June 6.

The Mercer Works of the American Sheet and Tin Plate Company, at Farrell, went through 10 months of the year 1927, with an average of 558 employes, without a disabling accident.

The Erie Railroad Shops, at Meadville, issue a challenge to anyone to beat the following record of their Paint Shop—17 months, 65,000 man-hours, no accidents.

The Reading Iron Company Works, at Pottstown, with 125 employes had 2 lost-time accidents in 1927. One of these was caused by an employe falling from a truck only 12 inches above ground and injuring his thumb. Up to June 4th this plant had no lost-time accidents in 1928. The superintendent and foremen are responsible for safety.

REVIEW OF INDUSTRIAL STATISTICS

PREPARED BY
The Bureau of Statistics

The Labor Market

Considerable improvement in employment conditions during July over June is indicated in the reports received from State Employment offices. Reports received from offices located in 14 industrial centers of Pennsylvania show a 9.2 per cent decrease in the ratio of unemployed applicants to open jobs compared with June. The July ratio of applicants per 100 jobs reported open was 206 compared with 227 in June, and with 199 in May. Last year between June and July the ratio of applicants to open jobs increased from 206 in June to 221 in July. According to the Employment Office figures, the general employment situation at midyear in 1928 is practically unchanged from the situation prevailing at this time last year save for this distinction: there has been a greater reduction in the proportion of unemployed persons applying at State Employment offices from January to July in 1928 than during the same period in 1927. During 1928, the ratio of applicants to open jobs decreased from 325 in January to 206 in July, a 37 per cent reduction, while in 1927 this ratio was reduced from 253 in January to 221 in July, only a 13 per cent decrease. This would seem to justify the inference that while unemployment in January, 1928, was much more prevalent than in January, 1927, the rate of decrease in unemployment in the first half of 1928 has been greater than during the same period last year, and that while there has been more unemployment in 1928 than in 1927, the general employment outlook at midyear in 1928 is more promising than at this time a year ago.

A total of 8,243 persons applied for work at State Employment offices during July: 5,646 men and 2,597 women. Of this number, 4,443 were sent to positions, but only 3,069, or 69 per cent, of those sent to positions secured employment. However, the total of reported placements does not always represent the true number of placements made. Employers sometimes fail to comply with the Department's request that they notify the Employment Office of their acceptance or rejection of the applicant sent to them for employment.

The demand for male workers was relatively better than the demand for female help. Calls for male workers during July were 55 per cent of the available supply, while the demand for female workers

represented only 35 per cent of the number of women workers available.

The large volume of building work in progress created a good demand for construction workers. Sufficient applicants for this class of work were readily obtained through State Employment offices to adequately meet all needs. Calls for additional help in manufacturing lines were improved over June. Calls for workers in the metal and food industries were received frequently. The clothing and textile industries are in their dull season and few new workers were required. Employment in transportation lines is inactive. Street railways are employing practically no new help, and railroads have sufficient workers on call lists to care for immediate needs. Vacation travel has helped employment in hotels and restaurants somewhat, although it is believed that the general volume of tourist travel in the State is less than last year. The employment of women day workers has slackened during July. Employment in the unskilled labor group was improved, but there are still large numbers of unskilled laborers in the State unable to find regular employment.

Employment, Earnings, and Hours Worked in Manufacturing Industries

Reports received from 812 manufacturing plants in the State employing more than 250,000 persons show a decrease of 1.8 per cent in manufacturing employment in July compared with June, and a 7.8 per cent decline in wage payments. The weekly earnings of workers in manufacturing industries during July averaged $1.59 less per week than in June. The closing of industrial plants over the Independence Day holiday and in some industries shut-downs for a general two weeks' vacation are responsible for the decreases in wage payments and average earnings. Total hours worked as reported by 474 firms for July show a decrease of 6.8 per cent compared with June, or practically the same decrease as is shown in average earnings.

This decline in industrial activity during July is largely seasonal in character. Last year between June and July employment in manufacturing industries showed a decline of 1.7 per cent; wage payments a drop of 7.1 per cent; weekly earnings a decrease of $1.44, or 5.6 per cent; and a 5.8 per cent decline in working hours.

The major changes in employment and earnings occurring within the various industry groups are due largely to factors affecting only that particular industry or group of plants in which the changes occur.

In the iron and steel forgings group, the closing down of one large firm for inventory taking and slight employment decreases reported by five other plants caused the July employment level for the iron and

steel forgings group to fall 7.5 per cent below the June level. In the stove and furnace industry, the 31.3 per cent decline in employment is accounted for by the customary practice in several plants of closing during the hot summer months.

In the automobile industry, particularly in auto-body manufacturing plants, employment is running 15 per cent above last year's figure. Practically all plants are operating full time and weekly earnings of workers are averaging anywhere from $20.00 to $45.00. Railroad car repair shops show no new activity. Few changes in employment were reported except as between the different shop locations. Three Sundays and one holiday falling within the payroll period covered in the railroad shop reports were responsible for the decrease in average earnings.

The shipbuilding industry in Pennsylvania is decidedly dull, notwithstanding the increasing interest displayed in small crafts and speed boats for practical transportation purposes. The ship and boat building industry in Pennsylvania is reported as the dullest for years, with practically no new work and a small volume of repairs.

In the textile industry, silk goods, carpets and rugs, and knit goods show the largest declines. Decreased employment was reported by 20 of the 40 firms in the silk industry, and some of the reductions were large. The slack season and an inactive silk market were quoted as reasons for the decline. Many silk mills were closed for 3 days over the Fourth of July. Some carpet and rug factories are working only 2½ and 3 days a week while others are working a full 48 hour week, but are alternately working half force a week at a time. Many knitting mills were closed for vacations during the first half of July.

Ice cream manufacturers report seasonally increased business. Firms in the Philadelphia area show the largest expansion.

The demand for tobacco products seems to fall off definitely during summer. Manufacturers of cigars report a very light demand, and many factories reduced forces during July.

The building materials group, after showing increased employment for June, slumped in July, glass plants showing the largest decreases. The various building material groups have not been showing a volume of business commensurate with the very large volume of building contracts awarded this year. Some manufacturers attribute the decline of business to active competition from foreign producers, especially in the brick and terra cotta industry.

The largest decreases in manufacturing employment during July compared with June were reported for Scranton, Sunbury, and the Allentown-Bethlehem-Easton areas with decreases of 12.4 per cent,

7.5 per cent, and 4.5 per cent respectively. Other places showing small decreases in manufacturing employment were Lancaster, New Castle, Philadelphia, Pittsburgh, Reading-Lebanon, and Wilkes-Barre. Williamsport with a 6.5 per cent gain over June showed the largest increase in manufacturing employment. Gains in manufacturing employment for other city areas were Altoona 0.5 per cent, Erie 0.3 per cent, Harrisburg, 1.4 per cent, Hazleton-Pottsville 0.7 per cent, and York 1.6 per cent.

Average weekly earnings of workers in manufacturing industries during July were highest in Erie with an average of $28.81, New Castle was second highest with an average of $28,26, and Johnstown was third highest with a reported average of $26.99. The lowest average of weekly earnings of workers in manufacturiing industries reported during July was $17.92 for Scranton.

The distinction between wages and earnings is important. It must be remembered in the consideration of these averages of earnings that the averages represent earnings for only a comparatively small group of manufacturing plants in a given area. It may so happen that in any given area the manufacturers reporting are large employers of women workers, or are large employers of a very low skilled class of labor. In either case there would be a vast difference between the average earnings reported for that community as compared with the earnings reported for another area where the average skill of labor employed is much higher, and where the total employment of women is small.

Exactly comparable data of earnings in the different communities cannot be secured, and it is therefore urged that the earnings figures as published in this report be not represented when quoted elsewhere as being the general average earnings for all industries in a given community. Their correct representation is an approximate average earnings of workers in manufacturing industries only. The figures are representative of earnings not wages. Such factors as overtime, part time, holidays, vacations, and plant shutdowns will directly affect the average weekly earnings of workers in a given community during a definite period. Wages on the other hand represent the fixed rates of pay for the performance of certain classes of work within given periods of time. When a worker's wage rate is $30.00 for a six-day week, and during a given week he works and is paid for only three days' work, the wage rate is unchanged at $30.00 per week, but his earnings for the week are but $15.00. Hence, careful discrimination must be made between earnings and wages so that correct impressions may be conveyed.

Industrial Accidents and Compensation Costs

During July, 1928, reports of 142 fatal and 12,291 nonfatal accidents to industrial workers were received at the Bureau of Workmen's Compensation. Compared with June, this is a decrease of 50 fatal accidents and 212 nonfatal accidents, or reductions of 26 per cent and 2 per cent respectively. The largest decrease in fatal accidents was shown for the coal mining industries. Fatalities in the anthracite mining industry during July were 17 less than in June, and the total of fatalities in bituminous mines was 20 less than in June. Fatalities for the general industrial group were 10 less than in June. This decrease occurred entirely in manufacturing industries. Fatal accidents in the construction, retail trading, and hotel and restaurant groups were slightly higher than in June. The transportation and public utility industry group showed a decrease of 3 fatal accidents compared with June.

Pennsylvania has had a 10 per cent decrease in accidents for the first 6 months of the year. The safety organization campaign fostered by the Bureau of Inspection has shown results. A good start has been made during the first month of the second half of 1928, and with the development of plans for intensive safety drives in industry during the fall months, an even greater accident reduction for the second six months is anticipated.

A comparison of the trend of accidents in 1928 for the three principal industry groups is interesting. The coal mining industry for the first 7 months in 1928 shows a gain of 140 fatalities over the corresponding period last year. This increase is due entirely to the Mather disaster. The industrial group shows a decrease of 31 fatalities, or 6 per cent, and the transportation and public utility group effected a reduction of 39 fatal accidents, or 25 per cent. Large reductions are shown in nonfatal accident totals. The industrial group, comprising the industries with which the Department of Labor and Industry is principally concerned in its safety inspection and accident prevention work, shows a reduction of 4,265 nonfatal accidents for the first 7 months in 1928, or a decrease of 7.6 per cent. Nonfatal accidents in coal mines for the same period show a decline of 6.4 per cent. A surprisingly large reduction in accidents is shown for the transportation and public utility group. The nonfatal accident total for this group for 7 months in 1928 is 28 per cent less than the total for the corresponding period last year. Much of this reduction is due to the large decrease in accidents to employes of steam railroads.

The accident totals for the three industry groups for the first 7

months in 1928 compared with the totals for the corresponding period in 1927 are as follows:

Fatal Accidents

Industry group	*Seven months 1928*	*Seven months 1927*	*Increase or decrease in 1928*	
			Number	*Per cent*
Industrial	493	524	—31	5.9
Coal mining	676	536	+140	26.1
Transportation and public utilities .	119	158	—39	24.7
Total ...	1,288	1,218	+70	5.7

Nonfatal Accidents

Industry group	*Seven months 1928*	*Seven months 1927*	*Increase or decrease in 1928*	
			Number	*Per cent*
Industrial	51,907	56,172	—4,265	7.6
Coal mining	27,827	29,720	—1,893	6.4
Transportation and public utilities .	5,455	7,589	—2,134	28.1
Total ...	85,189m	93,481	—8,292	8.9

An analysis of the causes of the fatalities occurring during July reveals little change in the position of principal causes of death in industry. Falling objects, cars and engines, falls of persons, and explosive substances continue as the predominating causes of fatal injuries to workers. Usually, 50 to 70 per cent of the industrial fatalities occurring within a given period are attributed to these four causes. Most of those killed by falling objects are employed in coal mines. Cars and engines kill almost as many in coal mines as on steam railroads. Falls of persons result in fatalities principally in the construction, manufacturing, and public utility industries. Mine gas and blasting powders account for the majority of deaths caused by explosive substances.

The need for the exercise of extreme caution when working on elevated surfaces cannot be too strongly emphasized. Eighteen workmen were killed by falls during July. Six fell from scaffolds, 2 from ladders, 3 from roofs, one from a pole, one on stairs, 2 from platforms, and 3 were killed by falls on the level. In only two instances were the falls due to the collapse of the supports. In one instance a scaffold collapsed and in another a ladder rung broke. In most other instances, the proclivities of some workers, particularly construction workers,

toward "chance taking" were partly responsible for the fatal falls. There is no room for "recklesness" on an elevated platform or scaffold.

During July, 1928, compensation agreements were approved in 7,085 cases involviing payments to injured workers or their dependents in the amount of $1,184,414 distributed as follows:

152 fatal cases	$532,603
227 permanent disability cases	226,248
6,706 temporary disability cases	425,563

Compensation awards for the first seven months of 1928 total $9,275,444 compared with $7,816,335 for the first seven months in 1927, an increase in 1928 amounting to $1,459,109, or 18.7 per cent over last year. The increases in the schedule of compensation rates, effective January 1, 1928, account for this increase in the amount of compensation awards.

Permanent injury cases for July show substantial decreases in all groups. The July total of permanent injury cases is lowest for the year. Permanent injury cases compensated during the first seven months in 1928 are 5 per cent less than the number compensated during the first seven months last year.

A reduction of the average period of disability for temporary disability cases was shown in July. The average period of disability for the July cases was 38 days compared with 54 days for the June cases. Even with this considerable decrease, the severity of accidental injuries in 1928 is running higher than in 1927. The average day loss for the temporary disability cases compensated during seven months in 1928 is 47 days compared with 43 days for the temporary injuries compensated during the first seven months in 1927.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF JULY, 1928

INDUSTRIES	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	8,243	5,646	2,597	4,010	3,095	915	4,443	3,367	1,076	3,069	2,393	676
Total: Industrial Group (skilled)	2,792	2,108	684	1,273	1,086	187	1,484	1,216	268	773	669	104
Building and construction	580	580	.....	327	327	.....	344	344	.....	205	205	.....
Shipbuilding	13	13	.....	8	8	.....	6	6	.....	5	5	.....
Chemicals and allied products	2	.....	2	2	.....	2	2	.....	2	2	.....	2
Clay, glass and stone products	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....
Clothing	23	1	22	8	.....	8	3	.....	3	3	.....	3
Textiles	17	11	6	12	.....	12	3	.....	3	3	.....	3
Food and kindred products	20	18	2	7	7	.....	6	6	.....	4	4	.....
Leather, rubber and composition	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lumber, woodwork and furniture	12	12	.....	2	2	.....	2	2	.....	2	2	.....
Paper and printing	5	3	2	2	.....	2	2	.....	2	2	.....	2
Metals and metal products	838	831	7	614	595	19	668	638	30	369	365	4
Mines and quarries	6	6	.....	6	6	.....	6	6	.....	2	2	.....
Transportation and public utilities	207	199	8	62	61	1	67	64	3	24	22	2
Hotel and restaurant	169	46	123	48	13	35	43	14	29	25	11	14
Wholesale and retail trade	161	48	113	37	13	24	45	16	29	26	12	14
Miscellaneous	735	336	399	138	54	84	287	120	167	100	40	60
Total: Other Groups	5,451	3,538	1,913	2,737	2,009	728	2,959	2,151	808	2,296	1,724	572
Professional and technical	380	326	54	109	100	9	171	163	8	46	42	4
Agriculture	12	12	.....	13	13	.....	9	9	.....	8	8	.....
Semi-skilled	1,602	638	964	659	286	373	768	321	447	462	237	225
Unskilled	2,518	2,385	133	1,488	1,467	21	1,534	1,509	25	1,314	1,295	19
Casual and day workers*	939	177	762	468	143	325	477	149	328	466	142	324
June, 1928	10,916	7,104	3,812	4,806	3,340	1,466	5,256	3,711	1,545	3,598	2,595	1,003
May, 1928	8,414	5,360	3,054	4,236	2,517	1,719	4,721	3,010	1,711	3,082	1,922	1,160
April, 1928	7,531	4,759	2,772	3,538	2,185	1,353	3,782	2,313	1,469	2,664	1,739	925
July, 1927	9,515	6,697	2,818	4,297	3,127	1,170	4,447	3,243	1,204	3,649	2,744	905
July, 1926	9,273	6,674	2,599	6,659	4,991	1,668	6,364	4,790	1,574	5,370	4,126	1,244
July, 1925	10,855	7,682	3,173	6,300	4,909	1,391	6,487	5,104	1,383	5,493	4,393	1,100

*The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended July 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: July 1928	EMPLOYMENT: Per cent change compared with: June 1928	EMPLOYMENT: Per cent change compared with: July 1927	PAYROLLS: Total weekly payroll week ended July 15, 1928	PAYROLLS: 1923-1925=100 Index numbers: July 1928	PAYROLLS: Per cent change compared with: June 1928	PAYROLLS: Per cent change compared with: July 1927	AVERAGE WEEKLY EARNINGS— week ended: July 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: June 15, 1928
ALL INDUSTRIES (51)	812	252,637	85.3	— 1.8	— 6.7	$6,108,338	82.1	— 7.8	— 8.2	$24.18	$25.77
Metal products:	236	93,139	81.1	— 0.9	— 7.3	2,480,033	76.6	— 9.2	— 8.3	25.27	27.57
Blast furnaces	9	1,993	45.5	— 0.2	—34.2	57,334	47.4	— 3.3	—34.4	28.77	29.72
Steel works and rolling mills	44	52,639	76.2	— 1.0	— 9.0	1,262,592	67.3	—13.5	—11.3	23.99	27.44
Iron and steel forgings	10	1,583	73.5	— 7.5	—12.5	39,441	75.6	—13.1	— 7.4	24.92	26.53
Structural iron work	10	4,269	101.1	+ 3.6	+ 1.7	115,491	99.3	— 1.7	+ 3.5	27.05	28.51
Steam and hot water heating appliances	17	4,532	94.6	+ 0.3	+ 2.5	133,596	102.7	— 5.5	+ 4.7	29.48	30.65
Stoves and furnaces	9	629	52.9	—31.3	—18.4	16,100	47.4	—35.9	—17.1	25.60	27.47
Foundries	40	7,586	83.4	— 1.0	— 4.2	199,968	81.3	— 5.9	— 7.6	26.36	27.78
Machinery and parts	40	9,540	103.8	+ 1.4	+ 6.1	284,817	109.0	— 1.5	+ 9.2	29.86	30.70
Electrical apparatus	16	4,824	99.3	+ 2.8	—16.8	111,419	102.3	— 1.7	—17.7	23.10	24.48
Engines and pumps	10	3,284	88.9	+ 0.7	— 8.0	89,624	90.0	+ 0.9	— 8.5	27.29	27.24
Hardware and tools	20	6,178	79.6	— 1.7	— 0.4	143,727	80.1	— 5.3	+ 4.0	23.26	24.20
Brass and bronze products	11	1,082	98.9	+ 5.8	+15.9	25,924	89.3	— 0.2	+ 6.6	23.96	25.38
Transportation equipment:	40	28,510	69.0	— 1.4	—20.1	788,533	65.6	— 8.9	—21.8	27.66	29.89
Automobiles	6	4,796	94.1	— 3.3	+ 9.0	138,182	94.0	—17.1	+ 9.6	28.81	33.66
Automobile bodies and parts	11	7,029	83.8	+ 2.1	+15.7	219,203	80.7	+ 0.1	+18.3	31.19	31.78
Locomotives and cars	13	12,012	58.6	— 0.8	—26.5	318,804	53.8	— 6.1	—25.8	26.54	28.06
Railroad repair shops	6	3,331	82.6	— 1.3	— 3.3	76,862	72.0	—21.0	—14.8	23.07	28.82
Shipbuilding	4	1,342	25.6	—15.2	—67.7	35,482	23.3	—14.7	—68.0	26.44	26.27
Textile products:	166	52,157	91.9	— 4.4	— 4.0	1,069,153	91.2	— 9.0	— 5.2	20.50	21.55
Cotton goods	14	3,228	73.8	— 0.7	—21.1	69,282	68.2	— 6.3	—21.6	21.46	22.71
Woolens and worsteds	16	6,310	88.6	— 0.4	+ 2.8	126,744	84.2	+ 0.1	— 2.7	20.09	19.96
Silk goods	40	15,439	91.0	— 8.5	— 4.0	269,902	86.7	—12.8	— 3.1	17.48	18.33
Textile dyeing and finishing	9	1,824	114.3	— 0.2	— 4.0	45,420	119.4	— 0.5	+ 2.3	24.90	25.01
Carpets and rugs	10	2,578	80.7	— 4.7	— 9.4	55,163	68.5	—14.3	—19.2	21.40	23.81
Hats	4	3,867	97.3	— 3.2	— 1.9	95,653	94.5	— 6.8	— 9.0	24.74	25.75
Hosiery	27	11,165	110.1	— 1.0	+ 4.0	276,012	121.5	—10.5	+ 4.2	24.72	27.32
Knit goods, other	15	2,566	72.5	—17.2	— 8.8	44,800	71.6	—20.0	— 5.0	17.46	18.09
Men's clothing	11	1,804	93.3	+ 7.2	—15.6	37,754	92.2	+ 7.8	—17.5	20.93	20.78
Women's clothing	9	1,107	104.5	— 0.6	— 2.2	14,214	93.9	—12.4	—14.6	12.84	14.59
Shirts and furnishings	11	2,269	87.5	— 4.3	— 6.3	34,209	81.9	— 7.7	— 7.6	15.08	15.64

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended July 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: July 1928	EMPLOYMENT: Per cent change compared with: June 1928	EMPLOYMENT: Per cent change compared with: July 1927	PAYROLLS: Total weekly payroll week ended July 15, 1928	PAYROLLS: Index numbers 1923-1925=100: July 1928	PAYROLLS: Per cent change compared with: June 1928	PAYROLLS: Per cent change compared with: July 1927	AVERAGE WEEKLY EARNINGS— week ended: July 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: June 15, 1928
Foods and tobacco:	103	22,721	96.5	— 2.2	— 2.3	$464,880	97.0	— 4.2	— 3.1	$20.46	$20.88
Bread and bakery products	30	4,403	106.5	+ 0.5	— 4.9	125,140	100.5	— 3.1	— 6.2	28.42	29.46
Confectionery	14	4,140	89.8	— 0.1	+ 2.0	76,487	93.5	—10.1	— 0.4	18.48	20.53
Ice cream	11	1,590	107.0	+ 5.2	— 1.5	49,928	113.6	+ 4.9	+ 0.1	31.40	31.50
Meat packing	14	2,005	92.4	+ 1.4	— 4.0	58,951	92.6	+ 5.8	— 2.0	29.40	28.19
Cigars and tobacco	34	10,583	96.1	— 5.8	— 2.9	154,374	94.7	— 8.1	— 4.6	14.59	14.95
Stone, clay and glass products:	66	16,390	86.4	— 1.0	— 7.1	414,762	80.1	— 9.7	—10.1	25.31	27.73
Brick, tile and pottery	30	4,695	89.5	— 0.7	—10.8	107,037	82.2	— 4.8	—15.9	22.80	23.75
Cement	14	6,379	88.9	+ 1.3	—16.4	189,032	90.7	— 8.1	—20.4	29.63	32.70
Glass	22	5,316	87.2	— 4.1	+ 7.9	118,693	72.5	—16.0	+ 9.2	22.33	25.48
Lumber products:	45	4,818	78.4	+ 2.1	— 8.8	100,726	76.6	+ 2.7	—13.5	20.91	20.78
Lumber and planing mills	19	2,361	75.6	+ 1.1	— 2.2	51,649	80.1	+ 7.2	— 6.3	21.88	20.59
Furniture	20	1,689	71.4	+ 2.3	—21.9	37,179	66.4	+ 3.4	—24.3	22.01	21.84
Wooden boxes	6	768	120.4	+ 5.1	+ 8.9	11,898	115.7	—14.4	— 1.7	15.49	19.00
Chemical products:	48	10,636	93.3	— 3.5	— 4.4	302,952	99.4	— 5.2	— 0.6	28.49	28.98
Chemicals and drugs	28	1,358	88.1	— 1.7	+ 5.6	37,681	91.7	— 0.9	+ 8.1	27.75	27.54
Coke	3	2,771	119.7	— 5.5	+13.2	74,582	114.2	—11.4	+12.8	26.92	28.73
Explosives	3	512	118.3	— 0.9	— 5.9	11,768	98.4	—13.5	— 3.7	22.98	26.31
Paints and varnishes	9	971	120.0	— 3.5	—13.5	23,454	112.2	—15.2	—13.7	24.15	27.51
Petroleum refining	5	5,024	81.9	— 3.1	—12.3	155,467	92.9	— 0.3	— 5.6	30.94	30.06
Leather and rubber products:	51	11,264	97.1	— 1.1	+ 3.3	254,185	100.2	— 1.1	+ 1.9	22.57	22.56
Leather tanning	17	5,834	105.5	— 0.5	+ 6.9	147,171	108.2	— 0.6	— 5.8	25.23	25.26
Shoes	23	3,956	88.3	— 1.9	+ 2.2	68,889	86.8	— 1.5	— 2.0	17.41	17.10
Leather products, other	7	537	99.4	— 1.7	— 9.7	11,133	89.6	— 4.3	—11.8	20.73	21.29
Rubber tires and goods	4	937	79.9	— 0.2	—10.2	26,992	94.0	— 0.4	—11.9	28.81	28.84
Paper and printing:	57	8,002	91.3	— 0.5	— 3.1	233,114	101.3	— 4.3	— 0.2	29.13	30.29
Paper and wood pulp	13	3,676	84.7	+ 0.7	— 4.1	102,905	92.3	— 4.9	— 2.4	27.99	29.66
Paper boxes and bags	6	655	88.1	— 0.8	— 7.6	9,181	94.8	— 9.9	— 2.9	14.02	15.44
Printing and publishing	38	3,671	100.8	— 1.6	— 0.8	121,028	111.6	— 3.2	+ 2.4	32.97	33.54
Construction and contracting	33	4,312	92.5	+16.1	—14.7	110,675	80.4	+ 9.1	—18.5	25.53	26.38

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		July 15, 1928	June 15, 1928	Per cent change	July 15, 1928	June 15, 1928
ALL INDUSTRIES: (46)	474	6,699,451	7,188,925	— 6.8	$.566	$.566
Metal products:	171	3,195,170	3,410,160	— 6.3	.598	.600
Blast furnaces	7	91,525	95,767	— 4.4	.571	.566
Steel works and rolling mills	27	1,537,448	1,720,750	—10.7	.620	.620
Iron and steel forgings	8	64,643	62,428	+ 3.5	.540	.578
Structural iron work	7	91,046	95,520	— 4.7	.584	.590
Steam and hot water heating appliances	11	134,509	135,340	— 0.6	.588	.608
Foundries	34	307,782	327,587	— 6.0	.605	.607
Machinery and parts	32	384,609	395,031	— 2.6	.615	.606
Electrical apparatus	14	208,819	194,652	+ 7.3	.502	.505
Engines and pumps	10	147,249	149,050	— 1.2	.609	.596
Hardware and tools	13	195,758	201,882	— 3.0	.526	.521
Brass and bronze products	8	31,782	32,153	— 1.2	.542	.551
Transportation equipment:	30	881,995	978,443	— 9.9	.625	.626
Automobiles	6	211,266	258,274	—18.2	.654	.646
Automobile bodies and parts	8	343,212	344,536	— 0.4	.610	.607
Locomotives and cars	8	201,247	214,183	— 6.0	.591	.601
Railroad repair shops	4	72,901	97,354	—25.1	.674	.688
Shipbuilding	4	53,369	64,096	—16.7	.665	.648
Textile products:	72	951,885	1,058,965	—10.1	.467	.446
Cotton goods	10	56,244	63,071	—10.8	.476	.479
Woolens and worsteds	10	122,214	128,333	— 4.8	.473	.447
Silk goods	21	305,301	369,834	—17.4	.423	.418
Textile dyeing and finishing	4	26,235	26,960	— 2.7	.489	.485
Carpets and rugs	5	68,910	74,661	— 7.7	.533	.540
Hosiery	6	259,199	263,044	— 1.5	.532	.493
Knit goods, other	8	49,710	52,091	— 4.6	.410	.405
Women's clothing	3	10,867	21,732	—50.0	.494	.346
Shirts and furnishings	5	53,205	59,239	—10.2	.320	.323

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Concluded)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		July 15, 1928	June 15, 1928	Per cent change	July 15, 1928	June 15, 1928
Foods and tobacco:	45	317,827	351,786	— 9.7	$.504	$.500
Bread and bakery products	20	110,404	113,326	— 2.6	.519	.520
Confectionery	5	85,046	99,289	—14.3	.426	.460
Ice cream	8	58,754	52,395	+12.1	.546	.572
Meat packing	9	58,172	56,863	+ 2.3	.552	.542
Cigars and tobacco	4	5,451	29,913	—81.8	.425	.350
Stone, clay and glass products:	34	413,362	443,220	— 6.7	.546	.546
Brick, tile and pottery	14	130,149	129,996	+ 0.1	.531	.536
Cement	8	177,034	194,217	— 8.8	.536	.535
Glass	12	106,179	119,007	—10.8	.581	.574
Lumber products:	36	110,235	108,733	+ 1.4	.530	.510
Lumber and planing mills	15	45,214	43,371	+ 4.2	.527	.536
Furniture	17	56,721	53,595	+ 5.8	.553	.515
Wooden boxes	4	8,300	11,767	—29.5	.383	.384
Chemical products:	20	295,227	293,341	+ 0.7	.564	.599
Chemicals and drugs	11	47,763	48,016	— 0.5	.496	.494
Paints and varnishes	6	36,220	45,125	—19.7	.562	.547
Petroleum refining	3	211,244	200,200	+ 5.5	.580	.636
Leather and rubber products:	26	250,188	243,489	+ 2.8	.477	.481
Leather tanning	9	110,663	109,390	+ 1.2	.526	.522
Shoes	9	84,337	79,296	+ 6.4	.356	.365
Leather products, other	4	7,885	8,193	— 3.8	.522	.519
Rubber tires and goods	4	47,303	46,610	+ 1.5	.571	.582
Paper and printing:	39	283,562	300,788	— 5.7	.591	.590
Paper and wood pulp	10	176,549	185,650	— 4.9	.529	.530
Paper boxes and bags	3	6,953	8,432	—17.5	.345	.355
Printing and publishing	26	100,060	106,706	— 6.2	.717	.713
Construction and contracting	24	143,540	133,914	+ 7.2	.652	.658

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS— week ended	
		No. of wage earners week ended July 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended July 15, 1928	Index numbers 1923-1925=100				
			July 1928	Per cent change compared with			July 1928	Per cent change compared with		July 15, 1928	June 15, 1928
				June 1928	July 1927			June 1928	July 1927		
Allentown-Bethlehem-Easton	79	21,097	86.8	— 4.5	— 6.2	$517,112	77.4	—10.7	—11.2	$24.51	$26.26
Altoona	14	2,212	.....	+ 0.5	.....	48,156	.....	— 3.6	.....	21.77	22.70
Erie	11	3,930	99.6	+ 0.3	— 2.7	113,211	96.1	— 4.5	— 2.8	28.81	30.28
Harrisburg	34	6,633	91.5	+ 1.4	+ 0.4	137,516	86.0	— 6.3	— 2.0	20.73	22.44
Hazleton-Pottsville	21	4,669	100.1	+ 0.7	— 2.9	96,185	90.9	— 3.7	[illegible]	20.60	21.55
Johnstown	13	931	97.5	0	—16.6	25,126	87.2	+ 4.7	— 4.5	26.99	25.79
Lancaster	30	4,267	97.1	— 2.5	— 7.5	88,372	85.2	— 3.2	— 3.9	20.71	20.88
New Castle	11	5,581	102.7	— 1.6	— 8.8	157,738	95.8	+ 0.1	— 5.8	28.26	27.79
Philadelphia	243	81,566	82.4	— 1.1	—11.8	2,140,275	72.7	— 4.8	—11.4	26.24	27.23
Pittsburgh	92	58,363	88.3	— 1.3	— 9.4	1,421,185	70.1	—13.3	—12.6	24.35	27.72
Reading-Lebanon	63	20,094	89.6	— 0.3	+ 2.3	479,846	81.9	— 4.5	+ 6.3	23.88	24.95
Scranton	32	4,400	89.9	—12.4	— 4.5	77,327	92.9	—18.1	— 1.8	17.57	18.89
Sunbury	27	7,754	60.8	— 7.5	—16.0	154,366	59.2	— 8.4	—19.3	19.91	20.08
Wilkes-Barre	21	5,658	72.6	— 3.2	— 8.7	101,412	74.4	— 5.8	—11.6	17.92	18.40
Williamsport	22	4,981	75.5	+ 6.5	— 3.9	115,806	72.2	— 6.1	+ 5.1	23.25	26.33
York	43	6,266	93.8	+ 1.6	— 1.1	125,395	94.5	— 0.7	+ 1.9	20.01	20.48

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

1928	ACCIDENT REPORTS RECEIVED								AGREEMENTS APPROVED			
	Total		Industrial		Coal Mining		Transportation and Public Utilities		Total	Fatal	Permanent Disability	Temporary Disability
	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal				
July	142	12,291	68	8,112	52	3,345	22	834	7,085	152	227	6,706
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	1,288	85,189	493	51,907	676	27,827	119	5,455	46,014	1,161	1,941	42,912
1927												
July	176	12,548	86	8,219	63	3,328	27	1,001	6,293	198	315	5,780
August	172	13,660	76	8,678	71	3,923	25	1,059	5,872	170	273	5,429
September	160	13,279	63	8,199	73	4,118	24	962	5,966	152	311	5,503
October	161	13,564	75	8,119	75	4,394	11	1,051	5,899	227	293	5,379
November	192	13,087	85	7,935	70	4,230	37	922	5,654	148	207	5,299
December	150	11,619	66	7,091	66	3,699	18	829	6,615	155	342	6,118
Total—1927	2,053	158,690	889	96,194	891	50,084	273	12,412	74,886	2,001	3,479	69,406
*Grand Total	30,143	2,234,145	12,837	1,414,256	12,567	619,621	4,739	200,268	889,091	24,917	25,904	838,270

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

	AWARDED				PAID			
1928	Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded	Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
July	$1,184,414	$532,603	$226,248	$425,563	$996,573	$341,208	$229,802	$425,563
August	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	$9,275,444	$3,987,845	$2,067,059	$3,220,540	$7,153,272	$2,016,542	$1,916,190	$3,220,540
1927								
July	$1,389,540	$604,010	$294,561	$490,969	$1,204,087	$307,034	$406,084	$490,969
August	1,140,955	484,986	271,678	384,291	1,081,893	256,510	441,092	384,291
September	1,058,988	426,309	287,559	345,120	902,607	278,397	279,090	345,120
October	1,120,444	514,306	238,293	367,845	1,017,146	325,006	324,295	367,845
November	1,005,356	511,597	184,903	308,856	824,175	246,964	268,355	308,856
December	1,214,804	431,969	327,799	455,036	983,473	276,085	252,352	455,036
Total—1927	$13,343,489	$5,772,868	$3,226,464	$4,344,157	$11,697,889	$3,492,763	$3,860,969	$4,344,157
*Grand Total	$144,260,528	$69,414,495	$29,948,392	$44,897,641	$100,690,848	$30,728,823	$25,064,384	$44,897,641

*Since the inception of the Act—January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	5	$12,734	1	$2,580	19	$43,574	14	$26,468	30	$50,163
August	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	71	$178,425	43	$113,550	130	$286,096	108	$188,331	310	$494,456
1927										
July	8	$20,056	6	$14,731	26	$51,976	20	$35,814	46	$65,013
August	13	31,089	6	13,768	22	43,184	13	20,310	51	75,731
September	14	33,780	4	10,169	13	26,602	12	22,607	62	93,165
October	10	25,800	5	11,610	17	36,456	13	23,264	43	61,051
November	11	27,211	1	2,572	14	28,563	6	10,742	31	47,654
December	11	28,380	2	2,440	17	36,215	17	31,594	69	107,843
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand Total	1,320	$2,924,002	937	$2,092,476	2,977	$5,451,295	1,825	$3,035,878	7,358	$10,258,867

*Since the inception of the Act—January 1, 1916.

**Multiple losses separated respectively.

**PERMANENT INJURIES—*(Continued)*

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	96	$38,846	85	$19,030	8	$3,853	6	$29,000
August	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	789	$311,115	657	$141,399	97	$40,667	65	$293,020
1927								
July	118	$40,259	104	$19,791	21	$9,072	10	$37,849
August	112	36,970	83	15,624	12	5,310	9	29,692
September	125	45,165	115	21,164	15	6,966	7	27,941
October	124	44,892	102	20,028	7	1,958	3	13,234
November	105	35,481	69	12,444	5	3,840	4	16,396
December	165	56,754	121	23,860	14	6,136	8	34,577
Total—1927	1,502	$509,006	1,202	$226,122	119	$55,331	90	$365,795
*Grand Total	7,552	$2,620,150	6,323	$1,201,841	461	$259,495	502	$2,104,388

*Since the inception of the Act—January 1, 1916.

**Multiple losses separated respectively.

Note: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING JULY, 1928

Cause	Total of All Industries		Construction and Contracting						Coal Mining				Other Than Coal Mining		Manufacturing																	
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous		Quarrying and Mining		Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	142	12,291	7	883	9	379	5	531	33	1,585	19	1,761	3	208	24	4,403	3	221	4	392	1	131	1	447	..	145	1	276	1	176	1	208
Working machinery and processes	3	954	..	26	..	8	..	19	..	27	..	82	..	3	3	711	..	9	1	17	..	59	..	28	..	30	..	69	..	40	..	62
Boilers and pressure apparatus	...	23	..	1	..	.....	..	2	..	.....	..	1	..	.....	..	9	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Pumps and prime movers	1	26	..	2	..	2	..	2	1	2	..	5	..	.....	..	10	..	7	..	.....	..	.....	..	1	..	.....	..	1	..	.....	..	.....
Transmission apparatus	...	18	..	.....	..	.....	..	.....	..	2	..	3	..	.....	..	9	..	.....	..	4	..	.....	..	1	..	.....	..	2	..	.....	..	.....
Elevators and hoists	1	89	..	8	..	6	..	3	..	7	..	11	..	2	1	30	..	1	..	2	1	3	..	6	..	2	..	2	..	4	..	4
Cranes and derricks	2	203	..	17	..	13	1	28	..	8	..	4	..	2	1	112	1	3	..	5	..	.....	..	3	..	1	..	1	..	2	..	1
Cars and engines	22	823	..	3	1	4	1	5	4	180	2	376	1	13	2	70	..	4	..	20	..	.....	..	.....	..	.....	..	2	1	.....	..	.....
Motor vehicles	12	486	..	27	3	22	..	21	..	.....	..	2	..	4	..	155	..	13	..	4	..	.....	..	36	..	4	..	2	..	9	..	1
Other vehicles	2	86	..	1	..	2	1	15	..	3	..	4	..	.....	..	30	..	1	..	.....	..	.....	..	19	..	.....	..	8	..	.....	..	.....
Hand trucks	2	155	..	5	..	4	..	6	..	4	..	1	..	1	1	101	..	8	..	16	..	.....	..	9	..	6	..	5	..	10	..	3
Water and air craft	1	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	7	2,674	..	170	..	78	..	131	2	284	1	234	..	60	2	1,120	..	51	..	137	..	26	1	118	..	27	..	55	..	31	..	51
Hand tools	1	1,258	..	72	..	45	..	54	..	191	1	202	..	34	..	410	..	17	..	14	..	9	..	28	..	15	..	48	..	11	..	9
Electricity	11	85	..	4	1	.....	..	1	..	7	..	29	..	2	4	24	..	1	1	2	..	.....	..	1	..	1	1	1	..	1	..	1
Explosive substances	13	109	..	2	..	3	..	3	7	32	1	9	1	7	2	24	2	9	..	1	..	.....	..	1	..	.....	..	.....	..	1	..	.....
Hot and corrosive substances	3	495	..	44	..	21	1	20	..	12	..	14	..	3	2	284	..	24	2	27	..	4	..	27	..	4	..	1	..	6	..	10
Falling objects	37	1,734	1	78	1	51	1	59	17	480	14	544	1	39	1	359	..	14	..	40	..	1	..	28	..	9	..	27	..	17	..	10
Falls of persons	18	1,641	6	241	2	61	..	83	1	165	..	108	..	15	4	509	..	30	..	50	..	24	..	93	..	25	..	31	..	22	1	35
Stepping upon or striking against objects	...	901	..	162	..	48	..	59	..	104	..	66	..	8	..	278	..	18	..	35	..	5	..	25	..	16	..	13	..	14	..	16
Miscellaneous	6	531	..	20	1	11	..	20	1	77	..	66	..	15	1	158	..	10	..	18	..	.....	..	23	..	5	..	8	..	8	..	5

*F.=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING JULY, 1928—*(Concluded)*

Cause	Manufacturing—(Concluded)																		Transportation and Public Utilities						Other Industries									
			Metals and Metal Products																								Trading							
	Total		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Retail		Wholesale		State and Municipal		Miscellaneous	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	11	2,332	1	87	..	460	1	454	7	919	2	215	..	197	1	75	12	446	3	206	7	182	1	145	6	560	2	134	11	344	..	524
Working machinery and processes	2	368	..	3	..	91	..	77	2	175	..	16	..	6	..	29	..	4	..	3	..	1	..	8	..	23	..	7	..	4	..	28
Boilers and pressure apparatus	...	8	..	1	..	1	..	2	..	1	..	2	..	1	..	.....	..	1	..	.....	..	5	..	.....	..	1	..	.....	..	2	..	.....
Pumps and prime movers	...	1	..	.....	..	.....	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	1	..	.....	..	2
Transmission apparatus	...	2	..	.....	..	.....	..	2	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	1	..	.....	..	1	..	1	..	1
Elevators and hoists	...	6	..	.....	..	.....	..	.....	..	5	..	.....	..	1	..	.....	..	2	..	.....	..	.....	..	1	..	7	..	3	..	.....	..	9
Cranes and derricks	...	96	..	2	..	31	..	16	..	39	..	6	..	2	..	.....	..	3	..	2	..	3	..	.....	..	1	..	1	..	3	..	6
Cars and engines	1	44	..	2	..	5	1	2	..	7	..	28	..	.....	..	.....	10	147	1	15	..	.....	..	.....	..	4	..	1	..	1	..	4
Motor vehicles	...	80	..	.....	..	2	..	1	..	17	..	4	..	56	..	6	1	3	2	43	..	10	..	2	2	67	..	13	4	67	..	50
Other vehicles	...	1	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	1	..	.....	..	.....	..	6	..	.....	..	10	..	1	1	6	..	8
Hand trucks	1	41	..	2	..	13	..	7	1	17	..	2	..	.....	..	3	..	15	..	2	..	1	..	1	..	5	1	2	..	.....	..	7
Water and air craft	...	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	1	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	1	613	..	26	..	119	..	141	..	257	1	44	..	26	..	11	..	91	..	42	..	37	..	38	1	154	..	41	1	44	..	150
Hand tools	...	256	..	5	..	33	..	28	..	102	..	36	..	52	..	3	..	51	..	19	..	25	..	14	..	58	..	13	..	29	..	41
Electricity	2	16	..	.....	..	.....	..	2	1	12	1	2	..	.....	..	.....	..	1	..	10	6	6	..	.....	..	.....	..	.....	..	.....	..	1
Explosive substances	...	12	..	1	..	1	..	2	..	4	..	1	..	3	..	.....	..	1	..	.....	..	8	..	1	..	1	1	1	1	13	..	4
Hot and corrosive substances	...	178	..	23	..	31	..	65	..	41	..	8	..	10	..	3	..	10	..	7	..	5	..	17	..	14	..	6	..	9	..	29
Falling objects	1	213	..	5	..	58	..	45	1	75	..	23	..	7	..	.....	..	14	..	6	..	11	..	7	..	21	..	12	1	20	..	33
Falls of persons	2	189	1	11	..	32	..	28	1	78	..	26	..	14	1	10	..	62	..	27	1	36	1	42	2	115	..	18	1	79	..	80
Stepping upon or striking against objects	...	131	..	4	..	25	..	24	..	54	..	12	..	12	..	5	..	15	..	9	..	16	..	6	..	55	..	9	..	33	..	33
Miscellaneous	1	77	..	2	..	17	..	12	1	34	..	5	..	7	..	4	..	25	..	21	..	12	..	7	1	24	..	4	2	33	..	38

*F.=Fatal. N. F.=Non-fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	162	11,975	12,137
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*308*	*23,887*	*29,195*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	162	14,332	14,494	147	12,539	12,686
	626	*46,081*	*46,707*	*529*	*45,064*	*45,593*	*484*	*40,379*	*40,863*	*516*	*41,930*	*42,446*	*455*	*36,426*	*36,881*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*685*	*54,623*	*55,308*	*594*	*47,354*	*47,948*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	172	12,869	13,041	360	13,041	13,401
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*857*	*67,492*	*68,349*	*954*	*60,395*	*61,349*
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	185	13,441	13,626	192	12,503	12,695
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,042*	*80,933*	*81,975*	*1,146*	*72,898*	*74,044*
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724	142	12,291	12,433
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,218*	*93,481*	*94,699*	*1,288*	*85,189*	*86,477*
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832			
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,390*	*107,141*	*108,531*			
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	160	13,279	13,439			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,550*	*120,420*	*121,970*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	161	13,564	13,725			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,711*	*133,984*	*135,695*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	192	13,087	13,279			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,903*	*147,071*	*148,974*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	150	11,619	11,769			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,053*	*158,690*	*160,743*			

NOTE:—The figures in italics represent the cumulative totals by months under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building,
Bureau of Bedding and Upholstery,
400 North Third Street,
Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building,
State Workmen's Insurance Fund,
Fourth and Blackberry Streets,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
413 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
306 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office.
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection.
1713 Hazleton National Bank Building.

Johnstown: .....Bureau of Inspection,
427 Swank Building.
State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

Lock Haven: .....State Workmen's Insurance Fund,
214 Vesper Street.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
108 North Fifth Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
418 Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: .....State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.

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CHARLES A. WATERS, *Secretary*

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THREE YEARS' WORK OF THE BUREAU OF WOMEN AND CHILDREN

CHARLOTTE E. CARR, *Director*

In Pennsylvania every sixth child 14 or 15 years of age leaves full-time school to become a wage earner. A quarter of a million children under 18 are employed in industry. Nearly three-quarters of a million women are engaged in gainful occupations. In view of these figures and in consideration of the great diversity of Pennsylvania's industries and consequently of its industrial problems, it is most fitting that the State Administrative Code (Section 1707) should provide for a Bureau in the Department of Labor and Industry for the making of "studies and investigations of special problems connected with the labor of women and children."

July 1928 closed the third year in which such a Bureau has functioned in the Department of Labor and Industry, a period of sufficient length to demonstrate the lines along which its activities can be developed and the practicability of its program. What the Bureau of Women and Children has done, what studies it has published, and what specific contributions it has made toward higher standards of work for women and children in Pennsylvania industries after this period of time, can be reviewed and evaluated.

Administrative Work

Industrial Home Work Regulations

The maintenance of industrial standards for factory work performed not in establishments where there is daily supervision by the management, but in private homes, presents certain very grave problems of enforcement. Effective enforcement nevertheless is of the utmost importance as in industrial home work there is to be considered not only the question of general sanitation and safety, but the ever-present problem of child labor; for industrial home work processes are usually simple operations which can easily be performed by children. The Bureau's first published report, "*Industrial Home Work and Child Labor,*" Special Bulletin No. 11, showed that half the home working families having children were permitting their children to work illegally.

Following the presentation of these facts, in the fall of 1925 the Department of Labor and Industry passed new regulations for the

maintenance of industrial standards on factory work performed in homes. It was logical that the administration of these regulations should be turned over to the Bureau of Women and Children as their enforcement involved continuous study and investigation rather than routine inspection. The Home Work Regulations require the licensing of all employers giving out work to be manufactured in homes and place upon the employer the responsibility for the observance of the Woman's Labor Law and the Child Labor Law. The task of getting into contact with and licensing employers giving out industrial home work has not been simple. The Bureau's publication, "*Persons, Firms and Corporations Licensed to Employ Home Workers in the Commonwealth of Pennsylvania,*" issued in July 1928, lists approximately 1,300 home-work employers. At quarterly intervals these employers refer to the Bureau the names and addresses of all their home workers, this list for June 1928 included 12,000 home workers. The effective enforcement of the Woman's Labor Law and of the Child Labor Law in this large number of homes is only possible with the interest and cooperation of the employers. The reduction in the proportion of child labor violations after personal contacts with home work employers and the dissemination to the home workers of information regarding legal standards of work through these employers, is indicated in the Bureau's published Annual Home Work Reports, "*The First Year's Administration of Industrial Home Work Regulations,*" LABOR AND INDUSTRY, March 1927, and "*The Second Year's Administration of Pennsylvania Home Work Regulations,*" LABOR AND INDUSTRY, March 1928.

While the Bureau's efforts have not solved the home-work problem, they have at least clarified it. It is now known what industries and occupations, what employers, and what localities have the most acute child labor problems. It is clear that these problems can only be met and solved where the cooperation of the employers is obtained, and it is evident that this cooperation is dependent upon a patient and consistent educational program carried on over a continued length of time.

Research Work

In industries where the operations are largely unskilled constituting processes on which children are as likely to be employed as women, the work conditions of the women and of the children may be similar, but the resulting problems very different. A distinction in the problems of women and of children in industry is consistently made by the Bureau and in general its research work is sharply divided into a study of "Children in Industry" and of "Women in Industry."

Children in Industry

While Pennsylvania is the second largest industrial state in the United States and the leading state in a number of industries in which children are traditionally employed, it had never on a state wide basis attempted to gather authoritative, unbiased information regarding the conditions under which its children were being employed. Such a survey was made by the Bureau with the cooperation of the Department of Public Instruction. The occupations, industries, hours of work, and earnings of the 25,000 fourteen and fifteen year old children enrolled in Pennsylvania continuation schools are discussed in the Bureau's report, *"Fourteen and Fifteen Year Old Children in Industry,"* Special Bulletin No. 21.

The administration of our Child Labor Law falling as it does upon school authorities, labor officials and in some instances the local police, involves certain serious enforcement problems. A frank discussion of some of these problems, together with carefully thought out schemes for their solution, is offered in a series of articles on "Children in Industry" compiled by the Bureau and written by outstanding school and labor officials as well as by employers. This symposium composes the whole of LABOR AND INDUSTRY, November 1926.

Accidents to Children

At the request of the Bureau a separate analysis of compensated accidents to minors was made by the Bureau of Statistics which has issued the very comprehensive report, *"An Analysis of Compensated Accidents to Minors for the Year 1926,"* Special Bulletin No. 17. As a result of the findings of this report the Bureau of Women and Children makes a daily review of all accident reports for minors under 18. These records are available under the law requiring the reporting of all accidents where an injury has caused an absence from work of two days or more. Where there is any indication of illegal employment, the cases are referred to the Bureau of Inspection for further investigation. Some of the outstanding findings coming from this current contact with every accident, compensable or non-compensable, to minors under 18, have been printed by the Bureau in the following publications: *"Industrial Accidents and Illegal Employment of Minors,"* LABOR AND INDUSTRY, February 1926; *"An Accident Prevention Plan for Children in Industry,"* LABOR AND INDUSTRY, November 1926; *"The Illegally Employed Child Injured in Industry,"* LABOR AND INDUSTRY, July 1927; *"Injured Children Excluded from the Benefits of Workmen's Compensation,"* LABOR AND INDUSTRY, July 1928.

Glass Industry

The importance of the glass industry in the State, the relatively large number of minors employed in this industry, and the trying conditions of work which have been considered an inevitable part of the process of glass making, were the reasons for making the study, "*Opportunities and Conditions of Work for Minors Under 18 in the Glassware Industry,*" Special Bulletin No. 18. This bulletin presents the outstanding problems which the employment of minors in the glassware industry involves, together with a description of the most effective methods which employers have developed to solve or to minimize these problems.

Migratory Child Workers

The employment of children as migratory workers to meet the seasonal requirements of agricultural work and of the canning of fruits and vegetables presents three outstanding problems. First, the maintenance of sanitary conditions in the temporary labor camps in which the children live. Second, the enforcement of the Child Labor Law to offset the tendency to permit the very young children brought to the camps with their parents to carry on employment which is illegal. Third, the maintenance of educational standards for children usually residents of another state who may lose schooling not only at the end of the spring term when they migrate to the country, but again in the fall as they tend to remain in the country until after the first severe frost. The Bureau's report, "*What of Pennsylvania Canneries,*" LABOR AND INDUSTRY, December 1925, gives the results of a survey made of the canneries and cannery labor camps in Pennsylvania and shows the very sub-standard condition then existing not only in the insanitary conditions in the camp but in the violation of the Child Labor Law in the canneries. As a result of this study and with the cooperation of the Pennsylvania canners, a new labor camp sanitation code has been drawn up by the Department and actively and effectively enforced.

Another phase of the State's migratory problem is the question of the children who migrate from the City of Philadelphia out of the State to carry on agricultural work mainly in the State of New Jersey. The conditions under which these children are employed is of course a problem not within the jurisdiction of Pennsylvania, but the fact that they leave Philadelphia schools early in the spring and return to school late in the fall occasions a serious loss of education for these children, and in many school districts a definite holding back of the standards for the whole school grade. The Bureau's study, "*Migratory Child Workers and School Attendance,*" Special Bulletin No. 26, in the press,

was made with the cooperation of the Philadelphia Public Schools. It shows that 80 per cent of the migratory children lost a month or more of the year's schooling, while nearly one-fifth lost three months or more. As an inevitable result, two-thirds of these children were below the normal school grade for their age. Practically all of the children worked and more than three-fourths of them were employed the same hours that their parents worked.

This report shows how erroneous is the popular impression that migratory children are "city children vacationing in the country while schools are closed."

Women in Industry

Mercantile Industry

Systematic methods of personnel practices have been developed more consistently and over a longer period of time in mercantile establishments than in manufacturing industries. The fact that personnel policies in effect in department stores would be those most likely to have stood the test of experience, together with the high proportion of women employed in department stores, were the reasons for the selection of this industry for special consideration by the Bureau of Women and Children. *"The Personnel Policies of Pennsylvania Department Stores,"* Special Bulletin No. 13, considers hours, weekly and annual earnings, personnel relations, and physical equipment of the establishments studied.

Industrial Seating

The need of good posture and good chairs for industrial workers is becoming more generally recognized with the increasing knowledge of industrial fatigue and its resultant inefficiencies. The Bureau has gathered material as to the kinds of chairs that are practicable for use in the various operations in which women are employed. This material is made available to employers as requested. The Bureau's study, *"A Good Chair for the Industrial Worker,"* published in LABOR AND INDUSTRY for August 1928, presents the basic principles of good industrial seating and offers the practical points which must be taken into consideration to get the best use out of the posture chair after it has been provided.

Hours and Earnings

Since 1923 the Bureau of Statistics of the Department of Labor and Industry, with the cooperation of the Federal Reserve Bank, has printed a monthly average figure of earnings of employes in representative

manufacturing industries in the State. This average figure while of extreme value in gauging for each industry the trend in earnings from year to year, can give no indication of the proportion of workers whose earnings may have varied from it, and may decidedly be influenced by the earnings of women, minors, or workers in any one occupational group. The importance to the various industries in the State of an impartial presentation for one representative pay period of these additional earnings data is best expressed by the hearty cooperation which the Bureau has met in gathering this information direct from the employers' payrolls. Textiles is the first industry to be given consideration as it is an industry in which a large proportion of women is employed. The first sub-industries studied have been the silk industry and the hosiery industry. Reports on these industries in occupational groups separate for men, women and children, giving hours of work, and weekly and annual earnings are now being prepared.

Educational Work

The effective enforcement of the Woman's Labor Law and of the Child Labor Law is dependent upon a knowledge and a sympathetic understanding of these laws by the community. The Bureau has prepared two small pamphlets, *"The Employment of Women in Pennsylvania,"* and *"The Employment of Children in Pennsylvania,"* which present in simple outline the State's industrial standards for women and for children who work. These pamphlets have been distributed widely through private organizations and through the public school system. They have been the subject of special class discussion in continuation schools and have been made available to all employers of women and children in the State.

The Bureau has wanted to give in popular form not only the present legal standards affecting the employment of children, but the historical development of child labor legislation in the State. This study, *"Child Labor Legislation in Pennsylvania,"* is ready for the press and will be published as Special Bulletin No. 27.

The Bureau has served as the medium for the calling of a number of conferences where the exchange of points of view and the open discussion by specialists of various industrial problems have made for higher industrial standards throughout the State. *"Conference on Women in Industry,"* Special Bulletin No. 10, gives the minutes of the first meeting which was held December 1925.

A joint conference was held by the Department of Public Instruction and the Department of Labor and Industry in April 1926 to discuss

methods whereby the two Departments could cooperate to enforce the regulations for which they are jointly responsible. The recommendations of this conference are printed in the *Pennsylvania School Journal,* September 1926.

Industrial Nursing was made the subject of a third conference called by the Bureau June 1927. As a result of the general interest which this meeting aroused, its minutes *"Conference on Industrial Nursing"* have been issued in LABOR AND INDUSTRY, August 1927. The Bureau also has published a *"Directory of Industrial Nurses in Pennsylvania,"* listing by establishment all nurses known to be employed in Pennsylvania industries.

At the request of the industrial secretaries of the Y. W. C. A.'s in the State a conference was called by the Bureau March 1928 for an informal discussion of industrial problems as they are approached by these secretaries. The Bureau Directors of the Department of Labor and Industry outlined the activities of their Bureaus and told of practical means by which the industrial secretaries could be of service to them in their work.

The Bureau of Women and Children tries to reach all organizations in the State interested in improving conditions of work for women or children. A special mailing list covering women's clubs, schools, colleges, libraries, employers of women, representatives of personnel departments in establishments, labor organizations, and industrial clubs, has been prepared and is used for the distribution of the Bureau publications. On an average of once a week a representative of the Bureau has talked to groups of persons on the Bureau's activities or on industrial conditions relating to women or children. The Bureau aims to prepare scientific reports, sound and impartial in their findings. It believes, however, that its studies to serve their full purpose must be simply presented to the public upon whose constructive interests higher standards of work in the main depend.

SAFETY STANDARDS IN INDUSTRY *

By W. Dean Keefer,

Chief Engineer and Director, Industrial Division, National Safety Council

The frequency and severity rates[1] of accidents in industry in the United States are on the decline if the results of a study recently completed by the National Safety Council can be accepted as typical of American industry as a whole.

For this study, the investigator secured the accident records of 687 companies in twelve industries for the two years 1925 and 1926. The joint frequency rate of these companies was decreased 7 per cent and the severity rate declined 9 per cent.

In spite of this progress, however, it is quite evident that still better records can be established, not only by these 687 companies, but more particularly by the remainder of the 196,000 manufacturing plants that are operating in this country, and that further progress depends upon the ability of industrial managers (1) to devise better and safer operating methods, and (2) to perfect their plans for teaching safety to the workers and their supervisors.

Before making any radical changes, it of course is necessary for the individual manager to study existing conditions and to determine in his own mind just what methods are now being used to the best advantage not only in his own plant, but also in the plants of his competitors. He will want to make sure that every available scrap of scientific and practical knowledge is at his disposal, that all suggested improvements are adaptable to existing conditions, and that each new expenditure can be justified by savings in production, operating efficiencies, or accident costs.

It is in this way that "standards" are developed, and fortunately the manager is saved a great deal of time and trouble because much of this standardization is being done for him (but with his cooperation) by the equipment and machinery manufacturers, his trade associations, various engineering societies, the American Engineering Standards Committee, and the National Safety Council. These and many other or-

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*Reprinted from The Annals of the American Academy of Political and Social Science, Philadelphia, May, 1928, Vol. 137, No. 2143.

[1]Accident frequency rate is the number of lost-time accidents per million hours worked. Accident severity rate is the number of days lost due to accidents per thousand hours worked.

A lost-time accident is an accident which causes death, permanent disability, or loss of time beyond the day or shift during which the accident occurred.

ganizations are rendering a specific service that no manager can afford to ignore.

Standards for Equipment and Operating Methods

The American Engineering Standards Committee, for example, through its Safety Code Correlating Committee and its mining Standardization Correlating Committee, has organized some fifty-five technical committees to study such subjects as ladders, grinding wheels, power presses, etc. The personnel of each of these technical committees includes a group of ten to forty experts representing the leading organizations of the country interested in the given subject, thus assuring the development of a report or code that is correct and comprehensive in every detail.

Progressive managers in all industries are working and cooperating in the formulation of these codes, and as rapidly as a new one is completed it is adopted as an industrial standard to be used as a guide for engineers, superintendents, foremen, and others who have charge of industrial operations. As industrial equipment and operating methods are improved, these codes are revised, so that each code presents the new and up-to-date ideas that can be recommended for immediate adoption.

Standards for Safety Education

Experience has shown that the standardization of industrial methods and equipment is extremely important in increasing production efficiency. It also helps in decreasing accidents and accident costs. Nevertheless, the safety education of supervisors and workers is equally effective and necessary. The standards for safety education, though not developed in code form, are as easily obtainable as are standards for industrial methods and equipment.

These educational standards particularly emphasize the need for employing or appointing one man to supervise the safety work in each plant. This man might be assigned such duties as investigating all accidents, supervising first aid, fire fighting and mine rescue work, keeping records of accidents and safety suggestions, making safety surveys, supervising safety committees, etc. Without a safety man, educational work among the supervisors and workers is likely to fail; success demands an organized plan well formulated and well supervised.

Emphasis is also given the necessity of selecting a sufficient number and the right type of supervisors who not only know the safe and efficient operating methods but who also have the ability to teach these methods to the men working under their supervision. In other words,

organization has a great deal to do with the success of any educational program.

Supervisors must then be given an opportunity to hold meetings from time to time to discuss their common problems—and accident prevention in particular. They should have access to trade journals and safety publications to increase their own funds of information which can be passed on orally to the workers.

Educating workers in safety is a job which challenges the ingenuity and ability of every industrial manager and supervisor. New ideas are being developed continually and necessitate considerable flexibility in working out detailed plans. Yet certain activities have secured such substantial results that the underlying principles remain unchanged standards. Such activities include the use of safety posters, publication of a company magazine, the use of safety signs, rule books, suggestion systems, and classes in first aid, distribution of printed matter such as pay envelope enclosures, special letters, handbooks and safety calendars, organization of safety committees, safety meetings, use of motion pictures, stereoptiecon slides, prizes and bonuses for safety, etc. Pamphlets on all these and many other subjects can be secured from various insurance companies, state labor departments, the National Safety Council, and other organizations.

If the annual toll of accidents in industry is to be cut down to the point to which it should be cut, safety must be made an integral part of the operating procedure of each plant. Contrary to the interpretation that is often given the term, standardization does not retard progress. On the other hand, it automatically eliminates non-essential and worthless variation, pointing a directing finger toward development along correct and reasonable lines.

THEY PUT SAFETY FIRST*

The Nice Ball Bearing Company, of Philadelphia, is preparing to supplement its safety work by the establishment of health supervision. A physician has been engaged and a dispensary will be established with nurse in attendance. All applicants for employment will receive medical examinations to determine the work to which they are best suited.

No lost-time accidents up to June 11th of this year is the report of White Brothers, metal smelters and refiners, of Philadelphia, employing 83 men. This plant has a safety committee.

The Eddystone Manufacturing Company, at Eddystone, with 765 male and female employes, had 2 lost-time accidents up to June 14th, this year. The longest period of the present year without an accident was 79 days.

The Philadelphia plant of the General Electric Company is outstanding in its safety work in that part of the state. During 1927, out of 42 departments, with an average of 2,534 employes, 31 of these departments, with an average of 1,627 employes, did not have a single lost-time accident. Among the departments with clean records were the Machine Balcony with 185 employes, and the Screw Machine Department with 105 employes.

The Stanley G. Flagg Company, Inc., at Stowe, manufacturing pipe foundry fittings, had 23 lost-time accidents among 850 employes in 1926, and 13 accidents with 700 employes in 1927. Most of these accidents were due to cuts and scratches. Workers handling molten metal all wear leggings and goggles.

The Henry Sheip Manufacturing Company, 6th Street and Columbia Avenue, Philadelphia, a woodworking concern with 300 employes has reduced accidents steadily from 151 in 1924 to 44 in 1927.

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*This will be a monthly feature in LABOR AND INDUSTRY. Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication. Address: Director, Bureau of Inspection, Department of Labor and Indusry, or your Divisional Supervisor of the Bureau.

The Valley Mill of the Glasgow Iron Company, at Pottstown, operated with 26 employes throughout 1927 with a single lost-time accident. This one accident occurred when a worker used his finger as a drift pin in centering a hole.

The Central Radiator Company, at Lansdale, with 135 employes working 256 days in 1927 had 2 lost-time accidents.

The Warner Foundry Company, at Lansdale, where safety is in charge of a foremen's committee, had only one lost-time accident in 1927. This was an eye infection caused by a bit of dirt that entered the eye when the worker removed his goggles, the injury being caused by the man's own efforts to remove the particle. Goggle wearing is the rule in this foundry.

INDUSTRIAL BOARD

The following rules and interpretations were approved by the Industrial Board at a meeting held on September 13, 1928.

Rules

New Rule to be placed in Miniature Boiler Section of Boiler Regulations:

"Manufacturers of miniature boilers built for use in Pennsylvania shall be required to register their names and addresses with the Department of Labor and Industry."

Rule 258 (k) of Elevator Regulations amended to read:

"Where chains or cables are used for raising or lowering the cars of power operated sidewalk elevators the sheaves or winding drums shall not be less than 10″ in diameter. The sheaves or winding drums of hand operated sidewalk elevators shall be at least 10″ in diameter where cables are used but where chains are used a lesser diameter will be permitted provided the sheaves are pocketed to receive the chains. All sheaves or winding drums shall be equipped with substantial retaining flanges."

Interpretations

Interpretation of Rule 223 (b):

"Where elevator machinery is located in the pits of existing installations, such installations may be accepted without changing the location of the machinery where, in the judgment of the Secretary of Labor and Industry, the continued operation of the elevator would not involve undue hazard."

Interpretation of Rule 223 (b):

"Where tunnels are necessary under the pits of elevators located in power stations, such tunnels may be permitted at the discretion of the Secretary of Labor and Industry provided they are not used as main passageways and further provided that substantial bulk heads be located between the bottom of the pit and the tunnel roof."

Interpretation of Paragraph P 291 of Boiler Regulations:

"It is the intent of the Boiler Regulations to require the fusible plug, if used, to be located 2″ above the highest point

of the top row of tubes, which point then becomes the lowest permissible water level. The lowest visible point in the water gauge glass is required to be located 2″ above the lowest permissible water level."

Interpretation of Miniature Boiler Section of Boiler Regulations:

"Miniature boilers may have placed thereon in addition to the stamping required by the Regulations a number indicative of registration of the particular boiler with the National Board of Boiler and Pressure Vessel Inspectors."

The following safety devices were approved:

Device	*Name of Company*
Collapsible gate guard.	Marshall Brothers Company, Pittsburgh, Pa.
Type No. 1 clamp safety.	General Elevator Company, Baltimore, Md.
Type R-1 car safeties for elevators up to 5,000 lbs. capacity and for passenger elevators up to 100 feet per minute speed.	Speidel Elevator Company, Reading, Pa.
Extension of approval of door operator to also operate car gates of car switch control elevator.	Elevator Supplies Company, Hoboken, N. J.
Extension of approval of door operator to also operate car gates of car switch control elevator.	Graham & Norton, New York City.

DEPARTMENTAL NOTES

William J. Maguire and W. H. Horner of the Department of Labor and Industry attended the Fifteenth Annual Meeting of the International Association of Industrial Accident Boards and Commissions at Paterson, New Jersey, September 11th to 14th.

Elizabeth Sands Johnson, an investigator in the Bureau of Women and Children since August, 1925, resigned to take up graduate work in Industrial Economics in the University of Wisconsin.

A. W. Sheasley of Montoursville, an elevator inspector in the Bureau of Inspection resigned September 20th to accept a position with the Pennsylvania Manufacturers Association Casualty Insurance Company.

REVIEW OF INDUSTRIAL STATISTICS

PREPARED BY

The Bureau of Statistics

The Labor Market

Considerable reduction of unemployment in Pennsylvania has been indicated in the State Employment office reports during recent months. At the beginning of the year unemployment in the State probably was more prevalent than at any time during the last six years. Reports received from State Employment offices for January showed that there were more than three applicants for every job reported open. The actual figures of the ratio were 325 applicants for every 100 jobs. Since January there has been marked improvement. The ratio of 325 applicants to 100 jobs reported in January, 1928, has dropped to 201 to 100 for August, 1928. In other words, when in January there were more than three applicants for every opening reported at State Employment offices there were but two in August. This, in so far as State Employment office records are reliable indicators of labor market movements, shows a decided lessening of unemployment during the last seven months. The chances of securing employment through State Employment offices in August, 1928, were 13 per cent better than they were in August, 1927, but were 58 per cent less than in 1926.

It must be remembered that the reports of Employment Office activities cannot be expected to accurately represent the true state of employment conditions, but can only point out probable tendencies. If employment office records show a 35 per cent reduction in the ratio of applicants to open jobs, it cannot be concluded that general unemployment has been reduced to that extent. The actual extent of unemployment can be determined only by an actual census of the unemployed. The Employment Office reports serve to indicate general trends in the labor market rather than movements of it.

Reports from State Employment offices for August, 1928, show that 7,953 applications for employment were received during the month. Calls from employers for workers numbered 3,953, or slightly less than half enough openings to give all applicants employment. Jobs were found for 2,958 men and women during August or in about the same proportion as in July. During the first eight months in 1928, State Employment officers have succeeded in finding employment for 22,297 persons compared with jobs for 36,989 persons during the first 8 months

of last year, a decrease of 14,692 jobs, or nearly 40 per cent. Applicants at State Employment offices during the first 8 months in 1928 numbered 72,015 compared with 93,518 during the corresponding period last year, a decrease in 1928 of 21,503, or 23 per cent. The ratio of applicants to placements for the first 8 months in 1928 is 323 to 100 compared with a ratio of 253 to 100 for the first 8 months last year.

The comparative availability of work in the various sections of the State during different periods of the year may be judged from the following table of ratios compiled from the reports of cities in which full-time State Employment offices are operated. The figures represent the number of applicants for jobs for each 100 jobs open.

	Year 1928			
	August	June	March	January
Allentown	306	217	251	447
Altoona	217	228	255	360
Erie	157	169	192	248
Harrisburg	131	161	147	155
Johnstown	250	186	246	406
Philadelphia	159	209	256	242
Pittsburgh	270	309	403	405
Scranton	232	263	412	467

Employment, Earnings, and Hours Worked

Reports received from 811 manufacturing plants during August, 1928, show a 2.5 per cent gain in employment compared with July. Wage payments and operating time in manufacturing plants also show marked improvement in August over July. During July, the usual midsummer industrial inactivity together with lost time caused by closings for holidays, vacations, inventories and repairs resulted in a 7.8 per cent decrease in payrolls and a 6.8 per cent decrease in operating time. In August, however, operating time showed a 9.5 per cent increase over July and wage payments were 9.1 per cent higher than in July. Weekly earnings of workers in manufacturing plants averaged $25.71 in August compared with $24.18 in July.

Among the metal industries, increased employment was reported for nearly all groups. The largest gains were reported for iron and steel forgings, stoves and furnaces, electrical apparatus, and brass and bronze products. Seven of the 10 firms in the iron and steel forgings group report increased employment and the increases in two instances were large. Skilled workers in this industry are in demand.

Steel works and rolling mills show a 22.6 per cent gain in payrolls over July. Much of this increase, of course, is due to seasonal expan-

sion, but this very large gain coming as early as August seems to indicate a good volume of steel business for the fall months.

Large increases in employment and earnings are shown for the stove and furnace industry. The average earnings of workers in one large stove plant in August were nearly $10.00 per week higher than in July.

Increased employment was reported by 10 firms in the electrical apparatus industry. The largest gains were reported by radio and battery manufacturers. One large company took on more than 1,500 new employes during August.

Railroad repair shops show little change in activity. The 12 per cent gain in payrolls shown in the table for August is due to differences in reporting periods and not to any actual increases in working hours or wage rates.

The shipbuilding industry is very quiet. The records for one company show that August was the poorest month in the industry in more than two years.

In the textile group, silk goods and knit goods show substantial gains. One large silk manufacturer hired more than 1,000 new workers during August and reported a good volume of orders. Employment throughout the silk and knit goods industries seems vastly improved.

Earnings of workers in the women's clothing industry were considerably higher than last month due largely to full-time operation in August as compared with decreased operation in July on account of vacations. This situation is true of many industries. A low level of average earnings is reached during July because many plants shut down for a week or two during summer vacation periods. The subsequent increases in payrolls recorded during August are apt to be misleading. The gains in many instances are the result of resumption of normal operating schedules during August following vacations during the preceding month. This is particularly true of the clothing, cigar, furniture, paint and varnish, and shoe manufacturing industries.

Construction employment continued to gain during August and showed a 12.9 per cent increase over July. The total volume of construction employment for August, however, is slightly less than at this time last year. Favorable weather during August has permitted construction operations to proceed with little or no interruption.

A summary of the employment situation, as it appears from the various reports submitted to the Department during August, leads to the opinion that employment in the State is tending upward. There is much lost ground to be regained before employment reaches the same level it attained in 1925 and 1926. However, the August reports from

manufacturers carry a more hopeful and optimistic note than has been sensed in the reports for some months. The reductions in employment and earnings during July were severe, but the general reaction in August, particularly in the metals group, seems to forecast generally improved business during the fall months.

Industrial Accidents and Compensation Costs

There were 176 fatal and 13,633 non-fatal accidents occurring to workers in the various industries of Pennsylvania reported to the Bureau of Workmen's Compensation during the month of August, 1928. The August accident totals compared with July show gains both in fatal and in non-fatal accidents. Fatal accidents in August were 34, or 24 per cent, higher than in July, and non-fatal accidents were 1,342, or 11 per cent higher. Although accidents for August show an increase over July, the August totals are not abnormally high and show slight change compared with the totals for August, 1927. The accident report for August, 1927, shows that 172 fatal and 13,660 non-fatal accidents were reported during that month.

A comparison of accident records for the first 8 months in 1928 with those for the corresponding period last year indicates marked improvement in the accident situation throughout the State, particularly for the industrial, and the transportation and public utility groups. The industrial group, which comprises the construction, manufacturing, mercantile, and general commercial industries, shows a decrease of 33 fatal and 3,850 non-fatal accidents compared with last year, or decreases of 5.5 per cent and 5.9 per cent respectively. The Department of Labor and Industry is charged with the safety inspection of the plants and of the industrial processes of firms in the industrial group.

The transportation and public utility industries also show reductions in accidents for the first 8 months in 1928. Fatal injuries to workers in this group are 42 less than last year, a 23 per cent decrease, and non-fatal accidents are 2,411, or 27.9 per cent less.

The coal mining industries have been less fortunate. The catastrophe in the bituminous region in May, 1928, eliminated the possibility of having a reduction of coal mining fatalilies in 1928. However, with the figures for the Mather disaster excluded from the comparison, coal mines for the first 8 months in 1928 show a decrease 46 fatal and 2,058 non-fatal accidents compared with last year.

The accident totals for these three groups for the first 8 months in 1928 and the first 8 months in 1927 compare as follows:

INDUSTRY GROUP	Eight Months, 1928		Eight Months, 1927		Increase or Decrease in 1928	
	Fatal	Non-fatal	Fatal	Non-fatal	Fatal	Non-fatal
Industrial	567	61,000	600	64,850	— 33	—3,850
Coal mining	756	31,585	607	33,643	+149	—2,058
Transportation and public utilities	141	6,237	183	8,648	— 42	—2,411
Total	1,464	98,822	1,390	107,141	+ 74	—8,319

Of the 176 workers reported killed during August, 23 were engaged in construction work, 34 in manufacturing, 80 in coal mines (31 in anthracite and 49 in bituminous), 14 in transportation, 8 in public utilities, 2 in quarrying, 3 in trade, 7 were government employes, and 5 were engaged in miscellaneous occupations.

The largest increase in fatal accidents is shown for the bituminous coal mining industry. Fatalities for this industry rose from 19 in July to 49 in August. A part of this increase is explained by a gas explosion occurring in the mine of the Irvona Coal and Coke Company on August 15th which resulted in the death of 13 mine workers. Another explosion at the Hillside mine of the Tunnel Smokeless Coal Company on August 9th killed five men. The month of August was marked for the unusual number of accidents resulting in death to more than one person. Four accidents resulting in multiple deaths were reported during the month.

Fatal accidents in the construction, manufacturing, public utility, and miscellaneous groups also were slightly higher than in July. Construction groups were slightly higher than in July. Construction showed an increase of 2 fatalities, manufacturing a gain of 10, public utilities an increase of one, and miscellaneous industries a gain of 5.

Industries which showed declines in fatal accidents in August compared with July included: anthracite coal mining, transportation, quarrying, trade, hotels and restaurants, and governmental agencies.

Falling objects, cars and engines, explosive substances, and electricity, in the order named, were the leading causes of accidental deaths in industry during August. More than one-fourth of the deaths from all causes were due to falling objects. Thirty-nine of the 48 deaths charged to falling objects during August occurred in coal mines. Four were killed by falling objects in the construction industry, 4 in manufacturing industries, and one in the quarry industry.

Twenty-nine persons were killed by cars and engines. Of those, 10 were employes of steam railroads, 14 were coal miners, 3 were employed in metal plants, one was a construction worker, and one a city traffic officer.

Of the 26 who lost their lives through explosive substances, 21 were killed either by blasting powders or gas explosions in coal mines, 4 construction workers by an explosion of sewer gas, and one employe in a manufacturing plant when the benzol he was using to clean machinery was ignited by an electric spark.

Electricity which with 13 deaths was the fourth highest cause of fatalities in August is rarely fourth in the list of causes of accidental deaths, usually it is fifth highest and sometimes sixth or seventh. In this connection, it might be of interest to note that although there has been no increase in the number of deaths due to electric shock during the first 8 months of this year, there has been an increase in deaths due to contacts with low voltage conductors. There were 10 deaths in industry attributed to low voltage electricity during the year 1927, and during only the first 8 months of 1928, 13 deaths from low voltage currents have been reported. Conductors carrying 110 to 440 volts should be treated with the same measure of respect as is accorded high tension lines. Careful inspection of insulation especially on low voltage trailer wires should be made frequently.

During August, agreements for the payment of compensation were approved in 6,904 cases involving payments to injured workers or their dependents to the extent of $1,328,342 distributed as follows:

142 fatal cases	$514,711
300 permanent disability cases	363,471
6,462 temporary disability cases	450,160

The awards made in permanent injury cases for August were nearly $140,000 more than in July, and increases for all classes of permanent injuries were shown. Permanent injuries compensated during August included 58 eyes, 11 arms, 21 hands, 110 fingers, 96 phalanges, 14 legs, 15 feet. There also were 15 cases of facial disfigurement, and 12 of total permanent disability.

The severity of injuries in temporary total disability cases was somewhat higher than in July. The average day loss for temporary disability cases in August was nearly 42 days compared with 38 days for the July cases. The average time loss for all temporary disability cases compensated thus far this year is approximately 47 days. The actual time lost through industrial accidents each year would be enough to give every worker in the State a full holiday. A No-Accident Holiday,

if earned by a year's no-accident experience, might be a worth while innovation in safety promotion programs.

Compensation awards for the first 8 months of 1928 total $10,603,768, or $1,648,803 more than for the first 8 months last year, an increase of 18.4 per cent.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF AUGUST, 1928

INDUSTRIES	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	7,953	5,254	2,699	3,954	2,911	1,043	4,430	3,194	1,236	2,958	2,262	696
Total: Industrial Group (skilled)	2,594	2,004	590	1,186	999	187	1,499	1,151	348	696	597	99
Building and construction	588	588	.....	348	348	.....	370	370	.....	200	200	.....
Shipbuilding	68	68	.....	53	53	.....	49	49	.....	42	42	.....
Chemicals and allied products	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clay, glass and stone products	3	2	1	1	1	.....	1	1	.....	1	1	.....
Clothing	14	6	8	16	1	15	1	1	.....	1	1	.....
Textiles	11	10	1	15	.....	15	1	.....	1	1	.....	1
Food and kindred products	17	10	7	6	1	5	7	1	6	6	1	5
Leather, rubber and composition	5	5	.....	5	5	.....	8	8	.....	3	3	.....
Lumber, woodwork and furniture	21	21	.....	4	4	.....	4	4	.....	2	2	.....
Paper and printing	7	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Metals and metal products	691	684	7	467	462	5	497	491	6	265	260	5
Mines and quarries	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Transportation and public utilities	168	161	7	31	30	1	52	50	2	18	17	1
Hotel and restaurant	164	37	127	66	19	47	71	18	53	36	14	22
Wholesale and retail trade	116	31	85	26	6	20	47	3	44	9	2	7
Miscellaneous	721	375	346	148	69	79	391	155	236	112	54	58
Total: Other Groups	5,359	3,250	2,109	2,768	1,912	856	2,931	2,043	888	2,262	1,665	597
Professional and technical	458	379	79	131	106	25	200	170	30	53	47	6
Agriculture	12	12	.....	10	10	.....	10	10	.....	6	6	.....
Semi-skilled	1,786	618	1,168	696	206	490	739	224	515	400	145	255
Unskilled	2,183	2,042	141	1,439	1,423	16	1,484	1,467	17	1,315	1,304	11
Casual and day workers*	920	199	721	492	167	325	498	172	326	488	163	325
July, 1928	8,243	5,646	2,597	4,010	3,095	915	4,443	3,367	1,076	3,069	2,393	676
June, 1928	10,916	7,104	3,812	4,806	3,340	1,466	5,256	3,711	1,545	3,598	2,595	1,003
May, 1928	8,414	5,360	3,054	4,236	2,517	1,719	4,721	3,010	1,711	3,082	1,922	1,160
August, 1927	10,053	7,109	2,944	4,345	2,988	1,357	4,530	3,147	1,383	3,544	2,571	973
August, 1926	9,955	6,941	3,014	6,805	5,010	1,795	6,604	5,049	1,555	5,542	4,326	1,216
August, 1925	10,671	7,632	3,039	6,201	4,688	1,513	6,459	5,023	1,436	5,466	4,304	1,162

*The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND WAGES IN PENNSYLVANIA

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended Aug. 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: Aug. 1928	EMPLOYMENT: Per cent change compared with: July 1928	EMPLOYMENT: Per cent change compared with: Aug. 1927	PAYROLLS: Total weekly payroll week ended Aug. 15, 1928	PAYROLLS: Index numbers 1923-1925=100: Aug. 1928	PAYROLLS: Per cent change compared with: July 1928	PAYROLLS: Per cent change compared with: Aug. 1927	AVERAGE WEEKLY EARNINGS— week ended: Aug. 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: July 15, 1928
ALL INDUSTRIES (51)	811	264,687	88.7	+ 2.5	— 2.4	$6,804,857	90.9	+ 9.1	— 2.0	$25.71	$24.18
Metal products:	237	107,146	87.0	+ 3.3	+ 1.3	3,005,573	91.4	+14.8	+ 3.9	28.05	25.27
Blast furnaces	9	1,976	45.2	— 0.7	—29.8	58,980	48.8	+ 3.0	—28.2	29.85	28.77
Steel works and rolling mills	44	53,337	77.2	+ 1.3	— 4.2	1,547,086	82.5	+22.6	+ 1.6	29.01	23.99
Iron and steel forgings	10	1,772	82.3	+12.0	— 0.8	45,130	86.5	+14.4	— 0.8	25.47	24.92
Structural iron work	10	4,469	105.9	+ 4.7	+ 8.8	124,550	107.0	+ 7.8	+ 3.1	27.87	27.05
Steam and hot water heating appliances	17	4,636	96.8	+ 2.3	+ 5.7	138,435	106.3	+ 3.5	+ 6.4	29.86	29.48
Stoves and furnaces	9	802	67.5	+27.6	—14.3	21,456	63.1	+33.1	—17.8	26.75	25.60
Foundries	40	7,478	82.3	— 1.3	— 5.5	202,105	82.1	+ 1.0	— 9.8	27.03	26.36
Machinery and parts	40	9,435	102.6	— 1.2	+10.4	290,167	111.0	+ 1.8	+13.0	30.75	29.86
Electrical apparatus	17	12,452	184.7	+21.7	+51.4	304,796	199.2	+23.7	+46.9	24.48	23.10
Engines and pumps	10	3,329	90.2	+ 1.5	— 7.3	95,886	96.2	+ 6.9	— 2.9	28.80	27.29
Hardware and tools	20	6,264	80.8	+ 1.5	— 7.8	148,327	82.6	+ 3.1	— 4.3	23.68	23.26
Brass and bronze products	11	1,196	109.3	+10.5	+34.1	28,655	98.6	+10.4	+19.7	23.96	23.96
Transportation equipment:	40	28,244	68.4	— 0.9	—19.1	799,331	66.5	+ 1.4	—22.1	28.30	27.66
Automobiles	6	4,627	90.8	— 3.5	+19.0	135,708	92.3	— 1.8	+31.1	29.33	28.81
Automobile bodies and parts	11	7,359	87.7	+ 4.7	+25.3	226,306	83.3	+ 3.2	+20.5	30.75	31.19
Locomotives and cars	13	11,815	57.7	— 1.5	—27.9	325,652	55.0	+ 2.2	—28.0	27.56	26.54
Railroad repair shops	6	3,330	82.6	0.0	— 1.1	86,361	80.9	+12.4	— 7.2	25.93	23.07
Shipbuilding	4	1,113	21.2	—17.2	—72.6	25,304	16.6	—28.8	—76.3	22.73	26.44
Textile products:	166	54,099	95.3	+ 3.7	— 1.4	1,148,438	98.0	+ 7.5	— 3.2	21.23	20.50
Cotton goods	14	3,261	74.5	+ 0.9	—19.6	71,703	70.5	+ 3.4	—18.6	21.99	21.46
Woolens and worsteds	16	6,365	89.4	+ 0.9	— 3.6	129,759	86.2	+ 2.4	—11.3	20.39	20.09
Silk goods	40	17,286	101.9	+12.0	+ 3.9	315,006	101.2	+16.7	— 0.1	18.22	17.48
Textile dyeing and finishing	9	1,766	110.8	— 3.1	— 6.9	46,092	121.1	+ 1.4	0.0	26.10	24.90
Carpets and rugs	10	2,484	77.8	— 3.6	— 2.6	59,882	74.3	+ 8.5	— 5.5	24.11	21.40
Hats	4	3,844	96.7	— 0.6	— 3.2	97,999	96.7	+ 2.3	— 5.8	25.49	24.74
Hosiery	27	10,955	107.9	— 2.0	+ 0.8	287,531	126.7	+ 4.3	+ 5.0	26.25	24.72
Knit goods, other	15	2,982	84.3	+16.3	+ 9.8	52,964	84.6	+18.2	+19.3	17.76	17.46
Men's clothing	11	1,728	89.3	— 4.3	—19.1	37,117	90.7	— 1.6	—28.2	21.48	20.93
Women's clothing	9	1,104	104.2	— 0.3	+ 6.3	15,852	104.7	+11.5	+ 7.7	14.36	12.84
Shirts and furnishings	11	2,324	89.7	+ 2.5	— 2.9	34,533	82.7	+ 1.0	— 7.2	14.86	15.08

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended Aug. 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: Aug. 1928	EMPLOYMENT: Per cent change compared with: July 1928	EMPLOYMENT: Per cent change compared with: Aug. 1927	PAYROLLS: Total weekly payroll week ended Aug. 15, 1928	PAYROLLS: Index numbers 1923-1925=100: Aug. 1928	PAYROLLS: Per cent change compared with: July 1928	PAYROLLS: Per cent change compared with: Aug. 1927	AVERAGE WEEKLY EARNINGS— week ended: Aug. 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: July 15, 1928
Foods and tobacco:	103	23,445	99.6	+ 3.2	+ 1.4	$470,044	98.0	+ 1.0	— 2.4	$20.05	$20.46
Bread and bakery products	30	4,346	105.0	— 1.4	— 4.8	123,907	99.5	— 1.0	— 5.6	28.51	28.42
Confectionery	14	4,156	90.1	+ 0.3	— 1.0	79,330	97.0	+ 3.7	+ 0.2	19.09	18.48
Ice cream	11	1,581	106.4	— 0.6	+19.1	50,187	114.2	+ 0.5	+19.7	31.74	31.40
Meat packing	14	2,026	93.4	+ 1.1	— 2.0	57,040	89.5	— 3.3	— 4.7	28.15	29.40
Cigars and tobacco	34	11,336	102.9	+ 7.1	+ 3.6	159,580	97.9	+ 3.4	+ 4.5	14.08	14.59
Stone, clay and glass products:	66	16,333	86.1	— 0.3	— 7.0	452,134	87.3	+ 9.0	— 6.2	27.68	25.31
Brick, tile and pottery	30	4,821	91.9	+ 2.7	— 6.3	112,716	86.5	+ 5.2	— 9.6	23.38	22.80
Cement	14	6,287	87.6	— 1.5	—17.0	208,966	100.2	+10.5	—12.5	33.24	29.63
Glass	22	5,225	85.7	— 1.7	+ 4.5	130,452	79.7	+ 9.9	+ 4.2	24.97	22.33
Lumber products:	43	5,080	84.1	+ 7.3	— 5.2	111,302	86.3	+12.7	— 7.0	21.91	20.91
Lumber and planing mills	17	2,428	80.6	+ 6.6	+ 4.0	51,850	83.7	+ 4.5	+ 1.0	21.36	21.88
Furniture	20	1,887	79.9	+11.9	—15.7	45,647	81.5	+22.7	—16.4	24.19	22.01
Wooden boxes	6	765	120.0	— 0.3	— 2.6	13,805	134.3	+16.1	— 0.4	18.05	15.49
Chemical products:	48	10,836	95.1	+ 1.9	— 7.6	314,013	103.1	+ 3.7	+ 1.5	28.98	28.48
Chemicals and drugs	28	1,362	88.3	+ 0.2	+ 1.7	37,524	91.3	— 0.4	+ 2.2	27.55	27.75
Coke	3	2,740	118.4	— 1.1	+16.3	78,670	120.4	+ 5.4	+14.2	28.71	26.92
Explosives	3	512	118.3	0.0	— 5.9	11,964	100.0	+ 1.6	— 5.6	23.37	22.98
Paints and varnishes	9	988	122.1	+ 1.8	—11.1	26,015	124.5	+11.0	—11.1	26.33	24.15
Petroleum refining	5	5,234	85.3	+ 4.2	—17.9	159,840	95.5	+ 2.8	— 1.5	30.54	30.94
Leather and rubber products:	51	11,340	97.8	+ 0.7	— 0.6	263,293	103.8	+ 3.6	— 0.3	23.22	22.57
Leather tanning	17	5,761	104.1	— 1.3	+ 2.8	148,988	109.5	+ 1.2	+ 6.1	25.86	25.23
Shoes	23	4,073	90.9	+ 2.9	— 3.0	74,763	94.2	+ 8.5	— 9.0	18.36	17.41
Leather products, other	7	571	105.8	+ 6.4	—12.1	12,074	97.2	+ 8.5	—12.6	21.15	20.73
Rubber tires and goods	4	935	79.7	— 0.3	— 8.7	27,468	95.7	+ 1.8	—11.1	29.38	28.81
Paper and printing:	57	8,164	93.2	+ 2.1	— 1.5	240,729	104.5	+ 3.2	+ 1.1	29.49	29.13
Paper and wood pulp	13	3,698	85.2	+ 0.6	— 4.7	107,653	96.5	+ 4.6	— 2.3	29.11	27.99
Paper boxes and bags	6	697	93.7	+ 6.4	— 3.1	10,438	107.8	+13.7	— 3.0	14.98	14.02
Printing and publishing	38	3,769	103.5	+ 2.7	+ 2.3	122,638	113.0	+ 1.3	+ 4.8	32.54	32.97
Construction and contracting*	34	5,166	104.4	+12.9	— 4.0	134,196	92.2	+14.7	— 8.1	25.98	25.67

*Not included in total for all industries.

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		August 15, 1928	July 15, 1928	Per cent change	August 15, 1928	July 15, 1928
ALL INDUSTRIES: (46)	477	7,449,199	6,800,518	+ 9.5	$.555	$.568
Metal products:	171	3,659,614	3,276,719	+11.7	.584	.598
Blast furnaces	7	91,414	91,525	— 0.1	.585	.571
Steel works and rolling mills	27	1,826,187	1,537,448	+18.8	.617	.620
Iron and steel forgings	8	68,190	64,643	+ 5.5	.569	.540
Structural iron work	7	94,718	91,046	+ 4.0	.590	.584
Steam and hot water heating appliances	11	145,621	134,509	+ 8.3	.593	.588
Foundries	34	400,710	389,331	+ 2.9	.469	.605
Machinery and parts	32	396,185	384,609	+ 3.0	.611	.615
Electrical apparatus	14	250,031	208,819	+19.7	.510	.502
Engines and pumps	10	160,179	147,249	+ 8.8	.599	.609
Hardware and tools	13	193,339	195,758	— 1.2	.533	.526
Brass and bronze products	8	33,040	31,782	+ 4.0	.555	.542
Transportation equipment:	30	907,466	881,995	+ 2.9	.621	.625
Automobiles	6	211,568	211,266	+ 0.1	.641	.654
Automobile bodies and parts	8	355,433	343,212	+ 3.6	.610	.610
Locomotives and cars	8	217,553	201,247	+ 8.1	.593	.591
Railroad repair shops	4	84,764	72,901	+16.3	.667	.674
Shipbuilding	4	38,148	53,369	—28.5	.663	.665
Textile products:	74	1,111,567	967,688	+14.9	.441	.467
Cotton goods	11	66,773	56,307	+18.6	.466	.476
Woolens and worsteds	10	120,869	122,214	— 1.1	.491	.473
Silk goods	22	417,060	321,363	+29.8	.409	.423
Textile dyeing and finishing	4	33,088	26,235	+26.1	.490	.489
Carpets and rugs	5	71,130	68,910	+ 3.2	.517	.533
Hosiery	6	271,589	259,199	+ 4.8	.482	.532
Knit goods, other	8	49,289	49,710	— 0.8	.392	.410
Women's clothing	4	30,359	17,767	+70.9	.377	.494
Shirts and furnishings	4	51,410	45,983	+11.8	.289	.326

EMPLOYMENT AND WAGES IN PENNSYLVANIA—*(Concluded)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		August 15, 1928	July 15, 1928	Per cent change	August 15, 1928	July 15, 1928
Foods and tobacco:	47	348,333	318,173	+ 9.5	$.486	$.504
Bread and bakery products	20	110,648	110,404	+ 0.2	.517	.519
Confectionery	6	93,246	85,483	+ 9.1	.418	.426
Ice cream	8	58,186	58,754	— 1.0	.544	.546
Meat packing	9	57,466	58,172	— 1.2	.546	.552
Cigars and tobacco	4	28,787	5,360	+437.1	.343	.425
Stone, clay and glass products:	34	446,528	413,362	+ 8.0	.543	.546
Brick, tile and pottery,	14	131,221	130,149	+ 0.8	.520	.531
Cement	8	198,221	177,034	+ 12.0	.537	.536
Glass	12	117,086	106,179	+ 10.3	.579	.581
Lumber products:	33	130,564	109,098	+ 19.7	.489	.530
Lumber and planing mills	13	44,219	44,077	+ 0.3	.526	.527
Furniture	16	76,402	56,721	+ 34.7	.481	.553
Wooden boxes	4	9,943	8,300	+ 19.8	.389	.383
Chemical products:	21	296,159	296,808	— 0.2	.586	.564
Chemicals and drugs	12	49,464	49,344	+ 0.2	.489	.496
Paints and varnishes	6	40,698	36,220	+ 12.4	.562	.562
Petroleum refining	3	205,997	211,244	— 2.5	.614	.580
Leather and rubber products:	28	264,715	253,113	+ 4.6	.473	.477
Leather tanning	9	113,058	110,663	+ 2.2	.529	.526
Shoes	11	95,900	87,262	+ 9.[illegible]	.354	.356
Leather products, other	4	7,925	7,885	+ 0.5	.525	.522
Rubber tires and goods	4	47,832	47,303	+ 1.1	.574	.571
Paper and printing:	39	284,253	283,562	+ 0.2	.606	.591
Paper and wood pulp	10	178,240	176,549	+ 1.0	.552	.529
Paper boxes and bags	3	6,620	6,953	— 4.8	.371	.345
Printing and publishing	26	99,393	100,060	— 0.7	.720	.717
Construction and contracting*	24	177,178	175,016	+ 1.2	.623	.611

*Not included in total for all industries.

EMPLOYMENT AND WAGES IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS— week ended	
		No. of wage earners week ended Aug. 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended Aug. 15, 1928	Index numbers 1923-1925=100				
			Aug. 1928	Per cent change compared with			Aug. 1928	Per cent change compared with		Aug. 15, 1928	July 15, 1928
				July 1928	Aug. 1927			July 1928	Aug. 1927		
Allentown-Bethlehem-Easton	79	21,994	90.6	+ 4.4	— 4.0	$562,154	84.1	+ 8.7	— 5.7	$25.56	$24.51
Altoona	14	2,241	82.0	+ 1.4	.....	48,518	78.2	+ 0.8	.....	21.65	21.77
Erie	11	3,916	99.3	— 0.3	— 0.9	117,127	99.3	+ 3.3	— 2.1	29.91	28.81
Harrisburg	34	6,823	94.1	+ 2.8	+ 1.4	151,360	94.6	+10.0	+ 3.1	22.18	20.73
Hazleton-Pottsville	21	4,703	100.8	+ 0.7	— 2.0	97,943	92.5	+ 1.8	— 2.1	20.83	20.60
Johnstown	13	939	98.4	+ 0.9	—14.5	24,553	85.1	— 2.4	—15.4	26.15	26.99
Lancaster	30	4,154	94.5	— 2.7	—11.8	86,459	83.3	— 2.2	—15.3	20.81	20.71
New Castle	11	5,735	105.5	+ 2.7	— 6.4	169,841	103.2	+ 7.7	— 1.8	29.61	28.26
Philadelphia	246	89,516	88.7	+ 3.0	—10.4	2,370,395	79.1	+ 4.4	—10.0	26.48	26.24
Pittsburgh	92	58,977	89.2	+ 1.0	— 4.9	1,678,756	82.8	+18.1	— 2.1	28.46	24.35
Reading-Lebanon	63	20,432	91.1	+ 1.7	+ 1.7	524,735	89.5	+ 9.3	+ 4.0	25.68	23.88
Scranton	32	5,002	102.3	+13.8	+ 8.3	88,908	106.8	+15.0	+ 3.8	17.77	17.57
Sunbury	26	8,731	68.9	+13.3	— 7.6	176,482	68.1	+15.0	—16.3	20.21	19.91
Wilkes-Barre	21	5,676	72.8	+ 0.3	— 1.9	103,748	76.1	+ 2.3	— 2.5	18.28	17.92
Williamsport	22	5,170	78.3	+ 3.7	— 5.0	128,161	79.9	+10.7	+14.5	24.79	23.25
York	43	6,182	92.5	— 1.4	— 0.9	124,160	93.7	— 0.8	0.0	20.08	20.01

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

1928	ACCIDENT REPORTS RECEIVED								AGREEMENTS APPROVED			
	Total		Industrial		Coal Mining		Transportation and Public Utilities		Total	Fatal	Permanent Disability	Temporary Disability
	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal				
July	142	12,291	68	8,111	52	3,346	22	834	7,085	152	227	6,706
August	176	13,633	74	9,094	80	3,757	22	782	6,904	142	300	6,462
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	1,464	98,822	567	61,000	756	31,585	141	6,237	52,918	1,303	2,241	49,374
1927												
July	176	12,548	86	8,219	63	3,328	27	1,001	6,293	198	315	5,780
August	172	13,660	76	8,678	71	3,923	25	1,059	5,872	170	273	5,429
September	160	13,279	63	8,199	73	4,118	24	962	5,966	152	311	5,503
October	161	13,564	75	8,119	75	4,394	11	1,051	5,899	227	293	5,379
November	192	13,087	85	7,935	70	4,230	37	922	5,654	148	207	5,299
December	150	11,619	66	7,091	66	3,699	18	829	6,615	155	342	6,118
Total—1927	2,053	158,690	889	96,194	891	50,084	273	12,412	74,886	2,001	3,479	69,406
*Grand Total	30,319	2,247,778	12,911	1,423,349	12,647	623,379	4,761	201,050	895,995	25,059	26,205	844,731

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	AWARDED				PAID.			
	Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded	Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
July	$1,184,414	$532,603	$226,248	$425,563	$996,573	$341,208	$229,802	$425,563
August	1,328,342	514,711	363,471	450,160	1,028,538	311,846	266,532	450,160
September	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	$10,603,786	$4,502,556	$2,430,530	$3,670,700	$8,181,810	$2,328,388	$2,182,722	$3,670,700
1927								
July	$1,389,540	$604,010	$294,561	$490,969	$1,204,087	$307,034	$406,084	$490,969
August	1,140,955	484,986	271,678	384,291	1,081,893	256,510	441,092	384,291
September	1,058,988	426,309	287,559	345,120	902,607	278,397	279,090	345,120
October	1,120,444	514,306	238,293	367,845	1,017,146	325,006	324,295	367,845
November	1,005,356	511,597	184,903	308,856	824,175	246,964	268,355	308,856
December	1,214,804	431,969	327,799	455,036	983,473	276,085	252,352	455,036
Total—1927	$13,343,489	$5,772,868	$3,226,464	$4,344,157	$11,697,889	$3,492,763	$3,860,969	$4,344,157
*Grand Total	$145,588,870	$69,929,206	$30,312,168	$45,347,496	$101,719,681	$31,040,669	$25,330,916	$45,347,496

*Since the inception of the Act—January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	5	$12,734	1	$2,580	19	$43,574	14	$26,468	30	$50,163
August	14	34,836	11	30,218	21	45,386	15	30,045	58	101,876
September	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	85	$213,261	54	$143,768	151	$331,482	123	$238,376	368	$596,332
1927										
July	8	$20,056	6	$14,731	26	$51,976	20	$34,814	46	$65,013
August	13	31,089	6	13,768	22	43,184	13	20,310	51	75,731
September	14	33,780	4	10,169	13	26,602	12	22,607	62	93,165
October	10	25,809	5	11,610	17	36,456	13	23,264	43	61,051
November	11	27,21[illegible]	1	2,572	14	28,563	6	10,742	31	47,654
December	11	28,38[illegible]	2	2,440	17	36,215	17	31,594	69	107,843
Total—1927	128	$319,78[illegible]	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand Total	1,334	$2,958,83[illegible]	949	$2,122,999	2,998	$5,496,681	1,840	$3,065,923	7,416	$10,360,743

*Since the inception of the Act—January 1, 1916.

**Multiple losses separated respectively.

**PERMANENT INJURIES—*(Concluded)*

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	96	$38,846	85	$19,030	8	$3,853	6	$29,000
August	110	43,169	96	21,539	15	9,920	9	46,482
September	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	899	$354,284	753	$162,938	112	$50,587	74	$339,502
1927								
July	118	$40,259	104	$19,791	21	$9,072	10	$37,849
August	112	36,970	83	15,624	12	5,310	9	29,692
September	125	45,165	115	21,164	15	6,966	7	27,941
October	124	44,892	102	20,028	7	1,958	3	13,234
November	105	35,481	69	12,444	5	3,840	4	16,396
December	165	56,754	121	23,860	14	6,136	8	34,577
Total—1927	1,502	$509,006	1,202	$226,122	119	$55,331	90	$365,795
*Grand Total	7,662	$2,663,319	6,419	$1,223,380	476	$269,415	511	$2,150,870

*Since the inception of the Act—January 1, 1916.

**Multiple losses separated respectively.

Note: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING AUGUST, 1928

Cause	Total of All Industries		Construction and Contracting						Coal Mining				Other		Manufacturing																			
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous		Quarrying and Mining Than Coal Mining		Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	176	13,633	6	1,135	10	432	7	575	31	1,888	49	1,869	2	274	34	4,936	1	221	3	449	1	144	1	517	1	127	4	330	2	184	3	214
Working machinery and processes	7	1,166	..	41	..	20	..	23	..	39	..	88	..	7	6	850	..	12	1	30	..	65	..	41	..	18	..	76	1	50	..	61
Boilers and pressure apparatus	...	25	..	1	..	.....	..	2	..	.....	..	.....	..	1	..	10	..	.....	..	.....	..	.....	..	1	..	.....	..	.....	..	1	..	1
Pumps and prime movers	...	33	..	2	..	5	..	5	..	3	..	6	..	.....	..	5	..	1	..	.....	..	.....	..	1	..	.....	..	.....	..	.....	..	.....
Transmission apparatus	...	14	..	.....	..	.....	..	.....	..	4	..	1	..	2	..	7	..	1	..	.....	..	.....	..	2	..	1	..	1	..	.....	..	.....
Elevators and hoists	3	77	1	6	..	2	..	2	1	12	..	10	..	1	..	23	..	3	..	.....	..	2	..	2	..	2	..	1	..	2	..	2
Cranes and derricks	10	247	1	30	1	18	..	23	..	10	1	6	1	6	6	127	1	4	1	8	..	.....	..	8	..	.....	..	1	..	1	..	1
Cars and engines	29	878	..	6	1	2	..	4	8	238	6	402	..	16	3	62	..	2	..	16	..	.....	..	.....	..	.....	..	.....	..	1	..	.....
Motor vehicles	8	552	..	41	1	36	..	42	..	3	..	2	..	6	3	164	..	14	..	7	1	4	..	39	..	1	..	7	..	6	..	2
Other vehicles	3	110	1	3	..	2	1	10	..	4	..	5	..	1	1	37	..	2	..	.....	..	.....	..	19	..	.....	1	14	..	.....	..	1
Hand trucks	...	162	..	11	..	7	..	18	..	.....	..	3	..	1	..	96	..	3	..	19	..	1	..	7	..	5	..	6	..	4	..	3
Water and air craft	...	3	..	.....	..	.....	..	1	..	.....	..	1	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	2	2,970	..	217	..	97	..	127	..	350	..	264	..	71	1	1,251	..	48	..	147	..	21	..	146	..	37	..	68	..	36	1	54
Hand tools	...	1,434	..	107	..	46	..	62	..	230	..	233	..	47	..	466	..	25	..	24	..	11	..	40	..	17	..	60	..	12	..	11
Electricity	13	83	..	4	1	.....	..	.....	..	10	2	28	..	3	2	24	..	.....	..	3	..	.....	..	3	..	.....	..	.....	..	1	1	1
Explosive substances	26	117	..	9	..	3	4	10	3	32	18	17	..	4	1	27	..	2	..	6	..	1	..	.....	1	1	..	1	..	.....	..	.....
Hot and corrosive substances	2	562	..	54	..	22	..	16	..	12	..	16	..	.....	2	356	..	29	..	29	..	3	..	35	..	11	..	2	1	10	..	12
Falling objects	48	1,878	1	93	3	38	..	65	17	541	22	577	1	53	4	394	..	10	1	47	..	2	..	29	..	12	2	31	..	18	..	13
Falls of persons	11	1,766	2	277	2	74	1	88	2	201	..	105	..	27	1	541	..	42	..	52	..	17	..	84	..	10	..	38	..	26	..	23
Stepping upon or striking against objects	2	949	..	202	..	40	1	52	..	120	..	54	..	14	1	300	..	12	..	39	..	10	1	32	..	8	..	15	..	12	..	22
Miscellaneous	12	607	..	31	1	20	..	25	..	79	..	51	..	14	3	195	..	11	..	22	..	7	..	28	..	4	1	9	..	4	1	7

*F.=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING AUGUST, 1928—*(Concluded)*

Cause	Manufacturing—(Concluded)																		Transportation and Public Utilities						Other Industries									
	Metals and Metal Products																										Trading							
	Total		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Retail		Wholesale		State and Municipal		Miscellaneous	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	18	2,683	4	94	2	537	2	592	6	1,028	3	255	1	177	..	67	11	418	3	123	8	242	..	130	2	523	1	149	7	372	5	567
Working machinery and processes	4	475	1	4	..	74	..	126	3	240	..	21	..	10	..	22	..	1	..	1	1	4	..	11	..	20	..	7	..	2	..	52
Boilers and pressure apparatus	...	7	..	.....	..	2	..	3	..	.....	..	2	..	.....	..	.....	..	2	..	.....	..	3	..	.....	..	1	..	.....	..	4	..	1
Pumps and prime movers	...	3	..	.....	..	.....	..	1	..	2	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	4	..	3
Transmission apparatus	...	2	..	.....	..	1	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Elevators and hoists	...	9	..	.....	..	.....	..	2	..	6	..	.....	..	1	..	.....	..	1	..	.....	..	3	..	4	..	6	..	2	..	1	1	4
Cranes and derricks	4	104	1	3	1	29	1	31	1	30	..	9	..	2	..	.....	..	6	..	1	..	5	..	.....	..	4	..	.....	..	2	..	9
Cars and engines	3	42	1	2	..	10	..	3	..	7	2	20	..	.....	..	1	10	125	..	13	..	1	..	.....	..	1	..	2	1	1	..	5
Motor vehicles	2	82	..	.....	..	4	..	1	1	12	..	4	1	61	..	2	..	4	1	20	..	12	..	1	1	63	..	22	2	76	..	60
Other vehicles	...	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	1	..	.....	..	.....	..	1	..	8	..	.....	..	10	..	1	..	14	..	14
Hand trucks	...	48	..	.....	..	11	..	11	..	22	..	4	..	.....	..	.....	..	8	..	.....	..	1	..	.....	..	9	..	1	..	1	..	6
Water and air craft	...	1	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	...	679	..	22	..	142	..	154	..	274	..	61	..	26	..	15	..	94	..	34	..	47	..	36	..	153	..	56	..	47	1	126
Hand tools	...	258	..	6	..	52	..	50	..	77	..	32	..	41	..	8	..	41	..	8	..	34	..	15	..	57	..	8	..	39	..	41
Electricity	1	16	..	1	..	4	..	.....	1	10	..	1	..	.....	..	.....	..	.....	1	2	7	7	..	1	..	1	..	.....	..	1	..	2
Explosive substances	...	15	..	.....	..	4	..	1	..	8	..	1	..	1	..	1	..	2	..	1	..	2	..	2	..	2	..	.....	..	2	..	4
Hot and corrosive substances	1	224	..	28	..	48	1	75	..	54	..	14	..	5	..	1	..	12	..	3	..	10	..	16	..	13	..	4	..	8	..	20
Falling objects	1	229	..	11	1	60	..	53	..	88	..	14	..	3	..	3	..	18	..	6	..	20	..	2	..	18	..	5	..	15	..	33
Falls of persons	1	244	..	7	..	47	..	30	..	99	1	52	..	9	..	5	..	62	1	15	..	51	..	33	1	103	..	27	..	67	1	95
Stepping upon or striking against objects	...	147	..	4	..	25	..	34	..	63	..	13	..	8	..	3	..	21	..	8	..	10	..	6	..	47	..	12	..	23	..	40
Miscellaneous	1	97	1	6	..	23	..	17	..	35	..	7	..	9	..	6	1	21	..	10	..	24	..	3	..	15	1	2	4	65	2	52

*F.=Fatal. N. F.=Non-fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	162	11,975	12,137
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*308*	*23,887*	*29,195*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	162	14,332	14,494	147	12,539	12,686
	626	*46,081*	*46,707*	*529*	*45,064*	*45,693*	*484*	*40,379*	*40,863*	*516*	*41,930*	*42,446*	*455*	*36,426*	*36,881*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*685*	*54,623*	*55,308*	*594*	*47,354*	*47,948*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	172	12,869	13,041	360	13,041	13,401
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*857*	*67,492*	*68,349*	*954*	*60,395*	*61,349*
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	185	13,441	13,626	192	12,503	12,695
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,042*	*80,933*	*81,975*	*1,146*	*72,898*	*74,044*
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724	142	12,291	12,433
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,218*	*93,481*	*94,699*	*1,288*	*85,189*	*86,477*
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832	176	13,633	13,809
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,390*	*107,141*	*108,531*	*1,464*	*98,822*	*100,286*
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	160	13,279	13,439			
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,550*	*120,420*	*121,970*			
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	161	13,564	13,725			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,711*	*133,984*	*135,695*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	192	13,087	13,279			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,903*	*147,071*	*148,974*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	150	11,619	11,769			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,053*	*158,690*	*160,743*			

NOTE:—The figures in italics represent the cumulative totals by months under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building,
Bureau of Bedding and Upholstery,
400 North Third Street,
Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building,
State Workmen's Insurance Fund,
Fourth and Blackberry Streets,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
413 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
306 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
1713 Hazleton National Bank Building.

Johnstown: .....Bureau of Inspection,
427 Swank Building.
State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

Lock Haven: .....State Workmen's Insurance Fund,
214 Vesper Street.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building.
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund,
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
533 Penn Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
418 Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: .....State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.

CONFERENCE NOTICE

The Pennsylvania Department of Labor and Industry will hold a safety engineering conference in Harrisburg on Wednesday, November 21st, at 10 A. M., in the assembly hall of the South Office Building. The purpose will be discussion of a new plan of state factory inspection and a state-wide industrial safety campaign in 1929.

Invitations have been extended to all industrial concerns in Pennsylvania listed with the Department as having full-time safety engineers, also to compensation insurance companies and to community safety councils. If any have been overlooked in the issuance of invitations, or if there are any industrial establishments not having full-time safety engineers, yet sufficiently interested to be represented, this notice may serve as their invitation.

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CHARLES A. WATERS, *Secretary*

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SAFETY IN THE CONSTRUCTION INDUSTRY FROM THE VIEWPOINT OF THE STATE*

By Charles A. Waters,
Secretary of Labor and Industry

Education and the development and enforcement of adequate regulations are the means by which the Pennsylvania Department of Labor and Industry is undertaking to promote safety in building construction. Education is put first because of what experience has shown the Department to be its relative importance.

Regulations are peculiarly inadequate in themselves to produce any considerable degree of safety in construction. A machine may sometimes be well enough guarded to make accident to the operator next to impossible. The same certainly cannot be said of a construction operation. So construction comes under a new general plan of the Department for advancement of safety through education, the most important feature of which is a study of the individual working force and the individual operation.

Up to this time the Department has largely endeavored to promote safety in construction and in all other lines of industry by systematic inspection under a block system whereby all industrial plants and industrial operations have been visited in the order in which they have been found in the locality. It has been impressed upon us more and more that this system does not make the most effective use of our limited inspection personnel. Under its operation those who are doing quite effective safety work of their own get as much, or almost as much, attention as others much more in need of assistance. It was realized that some means must be found for determining just what factories and just what contractors were having bad accident records and of concentrating attention on them.

Today the Pennsylvania Department of Labor and Industry is preparing to introduce something new in the field of state-wide accident prevention work. It is preparing to utilize individual accident records to advance safety. Through its Bureau of Compensation the Department receives reports of all lost-time accidents in industry in Pennsylvania. Preparation is now being made to apply these records in inspection.

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* Address National Safety Congress, New York City, October, 1928.

Within a few months the Bureau of Inspection of the Pennsylvania Department of Labor and Industry will be in position to know exactly what plants and what contractors are having more accidents than they should have in relation to the general average. Trained inspectors will then be prepared to sit down with these concerns and help them figure out where their weakness lies and how it can be remedied. Much is expected from this new plan which has the hearty endorsement of all associations of employers and workers to which it has been presented.

The need of adequate safety regulations and their enforcement, and the fact that the state can alone properly apply such regulations is not overlooked. A special drive for accident reduction in building construction covering the last two years developed inadequacies in existing regulations which are now being studied with a view to their correction. The so-called Scaffold Regulations of the Pennsylvania Department of Labor and Industry, which are in effect building construction regulations, are to be developed into such in fact. As revised, they will include regulations for building demolition which has been shown to be badly in need of safety restrictions. Recently the need of some other treatment of builders' hoists than the existing sweeping restriction against workers riding on them was shown to be essential, particularly when hoists afforded the only means, other than ladders or stairs, for workers to reach the upper floors of tall buildings under construction. Today workers in Pennsylvania are permitted to ride on builders' hoists when they are equipped with certain safety devices.

The Department is at this time engaged in the development of regulations to govern construction of trenches and excavations of all sorts. These regulations, as all others developed by the Department, are presented to both employers and employed in tentative form at public hearings for criticism before they are adopted, so that, as finally applied, they represent the best thought of those whom they will most affect, rather than a lot of closet-developed theories.

In teaching safety and in applying regulations in construction the first aim of the Department is to develop each contracting unit into a self-sustaining safety factor. It is recognized that safety organization is particularly difficult to apply to such contracting operations as building construction. On large operations there may be many subcontractors working with their individual forces under a general contractor. The Pennsylvania Department of Labor and Industry has applied, with considerable success on these operations, a type of safety organization in which the general contractor appoints a safety com-

mittee chairman and each sub-contractor appoints a representative on the committee. This committee holds a meeting at least once a week during the course of operation and discusses its safety problems with Department inspectors. Each sub-contractor fixes responsibility for the safety of his working force on one or more individuals, usually superintendent or foremen. This plan has been applied in the construction of the new $3,000,000 North Office building at the State Capitol in Harrisburg. While too early yet to state the final result, this operation to date has been remarkably free from lost-time accidents. The fixing of responsibility on supervisory workers has been found in Pennsylvania to be the best means of attaining safety in construction operations, taken along with the state's aid through education and application of regulations. The transitory type of worker engaged to so large an extent in construction does not lend himself readily to development of the highly efficient sorts of safety organizations that we find in many industrial plants.

An important feature of Pennsylvania's new plan for dealing with the accident problem in construction work is the development of a staff of building inspectors who are specialists. The desirability of safety inspection by specialists in any line of industry need not be stressed. Up to this time it has not been found practical to extend such inspection to all types of industry. Building construction, because of its very considerable hazard and its very special problems, has seemed to warrant this sort of treatment and after a year's application the Department already feels justified, through the extent of coöperation it is receiving from the industry, in feeling that no mistake has been made in extending to it this special safety service.

THE NATIONAL SAFETY COUNCIL, ITS HISTORY, MISSION, AND SERVICES

By Cyril Ainsworth,
Director, Bureau of Industrial Standards

In devoting this issue of Labor and Industry to the National Safety Council, the Department of Labor and Industry desires to give recognition to the valuable contribution which this organization has made toward the excellent record being made by Pennsylvania industries in the reduction of accidents.

As much as we, as a department engaged in accident-prevention work throughout the state, may desire to pat ourselves on the back for our part in the development of this record, we must give credit to the industries themselves for their energy and unceasing effort and to the help which these industries have received from the National Safety Council. We are convinced that those industries which have developed accident-prevention programs that count for something will be found to be members of the National Safety Council; and to that large group of unorganized industries and establishments which so far have remained lukewarm to the safety movement and who are the largest contributors to Pennsylvania's industrial killed and injured list, we commend the services, inspiration, and advice that come from membership in this national association organized for service and not for profit.

Organized to prevent accidents everywhere, the National Safety Council today is financed by 4,650 members, representing 153 different kinds of industries, government departments, community safety councils, educational institutions, libraries, Chambers of Commerce, motor clubs, insurance companies, various national state and local professional, trade, and business organizations and public spirited citizens. It is a coöperative nonprofit making institution, which is endeavoring to promote safety, sanitation and health in the industrial, public and home life of the American people. Its officers and 1,000 committeemen serve without financial compensation, meeting regularly to determine its policies and programs.

The first National Safety Congress was held at Milwaukee in 1912 by the Association of Iron and Steel Electrical Engineers and a formal organization meeting was held in New York City in 1913, when that body was originally started as the National Council for Industrial

Safety. The name was later changed inasmuch as the scope of the institute broadened to include safety on the streets and highways, in other public places, at home, on the sea, and in the air.

What has the National Safety Council to offer me, is a natural question for industries not at present affiliated with the organization. The first and probably the most important service which the Council renders to any individual establishment that has an accident problem to solve, is the furnishing of adequate information collected from the experience of its 4,000 odd members which is obtainable at any time by any establishment that has an accident prevention problem to solve. Not only does the National Safety Council employ a trained staff to assist its members to solve their problems, but it maintains a library filled with valuable accident-prevention material available for use at all times.

A monthly magazine called *National Safety News,* containing articles on ways and means of preventing accidents, describing new guards that have been developed, illustrating posters for bulletin boards and explaining periodically in detail what are considered the best safe practices to be followed in conducting specific types of establishments is sent to all members in quantities according to the size of membership. The latter feature of the magazine is also published in pamphlet form obtainable at cost. Miscellaneous printed matter on all phases of accident-prevention work together with access to a valuable collection of lantern slides is available to all members. In truth it is a great clearing house of information and experience which if used by members would save them hundreds of dollars annually over and above the cost of membership in the council.

To the industries of Pennsylvania, we commend the services of this great organization. Communicate with its officers, investigate its services, join in its efforts, and contribute to this great accident-prevention movement, making your plant and your community more prosperous and a more desirable place in which to work and live.

NEWLY ELECTED PRESIDENT OF THE NATIONAL SAFETY COUNCIL

MAJOR HENRY A. RENINGER

MAJOR RENINGER

President, National Safety Council

At the Safety Congress held in New York City, October 1928, Major Henry A. Reninger was elected President of the National Safety Council.

This distinction coming to Major Reninger is fitting and appropriate in view of his tremendous interest in and devotion to accident-prevention work. He has been an active member of the National Safety Council since 1914, and has served several times as a member of the Executive Committee, and as Vice-President. His election to the presidency is an excellent recognition of this past service.

Major Reninger has been a very close friend and counselor of the Department of Labor and Industry. He has helped it fight its battles, has encouraged it when progress seemed slow, and has suggested plans and policies which have greatly aided the department in its work. It is for these reasons that the Department of Labor and Industry is particularly pleased with the honor that has been bestowed upon him.

Major Reninger is the third Pennsylvanian to serve in this capacity. The other two persons from this state, who, as presidents directed the work of the National Safety Council, were Lew R. Palmer at the time he was Director of the Bureau of Inspection of the Department of Labor and Industry, and C. B. Auel of the Westinghouse Electric and Manufacturing Company.

ADDRESS OF ACCEPTANCE

By Henry A. Reninger,*

President, National Safety Council

Having known the National Safety Council almost from its inception, its aims and ideals, I accept with a deep sense of responsibility the position of honor and trust as your president, appreciating fully the confidence your executive committee has imposed in me.

May I ask for your generous and constructive support toward all of the efforts and activities of the Council?

Placed on a firm foundation by our past presidents, executive committees, and loyal workers we have built up in a comparatively short time vast responsibilities. No longer are we promoting safety in industry only. The work now of the National Safety Council, through its various sections, local safety councils—committees, as well as individual personnel, touches every phase of life.

We are not only a national organization, but recognized internationally as the leader of the world in accident-prevention work.

This summer I again visited the battlefields of France and was deeply impressed, after ten years of peace, with the hundreds of thousands of crosses in the poppy fields of France. This was a terrible sacrifice of Human Life,—but it was War.

Now in time of peace, the annual toll in America due to accidents is 90,000 lives lost. An unnecessary sacrifice. After the experience of educating and training men for war, what a great satisfaction and happiness we have today in educating men not to kill but to save themselves and their fellowmen from needless destruction, pain, and suffering.

The problem of the National Safety Council is the expansion of its present activities. Home, school, and public safety programs must be more fully developed. This can only be accomplished, however, by an increased membership and income, and through the generosity of public-spirited citizens.

Speaking for your officers, executive committee and board of directors and council staff on whose shoulders rests the responsibility of this great movement, we accept it cheerfully knowing that we have your hearty and loyal support as well as the enthusiastic coöperation

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* Special Representative, Lehigh Portland Cement Company, Allentown, Pennsylvania.

of the thousands of other safety workers throughout the country, whose influence is felt in their own communities.

After these ten years in active safety work, let me assert—there is no better use we can make of our lives than to dedicate them to the great cause of universal safety.

As your president for the coming year, it will be my endeavor to give you the best I have, gladly—knowing I have you all with me in helping to make safety understood and appreciated throughout our country, to carry on the noblest task that can be given to any man or woman—the saving of human life.

SAFETY AND LABOR RELATIONS*

By J. M. Larkin,

Assistant to President, Bethlehem Steel Company

I have been asked to speak on the subject of safety and labor relations. Obviously such a broad topic cannot be adequately discussed in the short time at my disposal. I will, therefore, attempt to emphasize one phase of this subject which I believe has particular bearing in helping us to see in a new light the important economic position which good safety and good labor relations have come to have in business. I refer particularly to the necessity of doing everything we can to assure to workers steady jobs in order that their living standards may be protected or even improved and their buying and saving power uninterrupted in the best interests of the community at large.

At the outset let me say that in no other country and during no other era have safety and labor conditions been as sound and wholesome as in America today. Greater emphasis is being placed on safety and accident-prevention work than ever before. The results of these efforts are that industry is today a safer place in which to work; workers, collectively and individually, are more cognizant of the safety factor in their daily occupations. Furthermore, they have come to realize the economic importance to themselves and to their company in avoiding accidents.

Such results as these are possible only because of the fundamental improvement which has been brought about in labor relations generally. Coöperation in industrial relations has brought with it a greater measure of coöperation in direct safety efforts. The economic side of safety has become a factor of greater consideration without disturbing the interest in accident prevention from a humanitarian standpoint.

There is generally better thinking on the part of workers themselves. They have come to have an enlarged viewpoint toward each other and industry, they are less provincial and are seriously concerned about the prosperity of business as a whole because they realize their stake in it. This is due largely to the enlightened educational work that has been done by industry, to the practice of imparting freely to the labor force facts about the conditions of the business, to the generally sound policy of public relations in industry today, and to the larger

* Address National Safety Congress, New York City, October, 1928.

participation workers have in their companies, and in the better things of life.

I think I may safely say that workers have come to realize that their own interests are best served by having others prosper. After all this is but a part of the general trend of the times which is exemplified by a changed thought among business leaders themselves. They have ceased to take a certain quiet consolation in the fact that their own particular company is better off than the other fellow's and have come to realize and appreciate that the troubles of another industry are their own troubles.

This healthy situation, which exists generally among business leaders and in labor circles, is indeed one of the most hopeful signs for an enduring period of amicable industrial relations; and the safety movement, because of its unselfish aims, has played an important part in bringing about these desirable conditions.

We find today that even in spite of the immigration restrictions and in spite of a reasonably high level of productivity, there is actually an ample supply of labor. Moreover, the efficiency with which industry is being carried on today has made it possible to release from the old to the new industries an ample supply of labor. This efficiency has been brought about largely through the increased productivity of labor.

This increased productivity has had its greatest growth during the last five or six years. It has been brought about by four outstanding developments: first, there is the item of capital expenditure through which mechanical devices, electrification, larger units, changed methods and processes have come about; second, there is the item of improved management; third, there is the item of increased efficiency on the part of labor itself; fourth, there is the item of a steady reduction in accidents and other wastes with the resultant gain in working time and increased earnings and purchasing power of the worker.

We are getting a better quality of labor today. Workers are more intelligent. The school requirements of the country are helping in this regard. There is a better feeling in labor circles. High wages are generally paid and management is exerting every effort to maintain these levels. Shorter hours are worked. The men are working less arduously than formerly and all of these factors have tended toward increased individual output coupled with better safety performance. Then again, the extended experience formerly required to perform certain operations has been thrown to the winds until today we find that most jobs in our plants can be filled by new men under relatively brief training periods. So industry generally is in a posi-

tion to obtain sufficient labor of the type that lends itself more easily to rapid training in safe and efficient practices.

Naturally we ask what has become of the workers released as a result of increased efficiency and newer methods in the older industries? Have they left the community or are they idling away, waiting for an opportunity to be employed? Not at all, they have largely become absorbed in industries which greater buying power of labor generally has helped to create.

The experience of one particular community, which is probably typical of many others, reveals that many of these released workers are now employed in an automotive manufacturing plant, in the many garages that have come into existence, in the scores of filling stations and automotive supply houses, in manufacturing radio equipment, manufacturing modern household utensils, in public improvements, including highways and bridges; and a host of other lines created and maintained by the buying power of the workers.

The community I have just mentioned is essentially a one-industry center in that the large majority of its population is directly dependent for a livelihood upon one large company. It might be expected that the reduction of 3,000 workers in this plant during the last seven years would to some extent reduce or retard the growth of the local population or that there would exist severe unemployment. The facts are, however, the population has increased by 28 per cent and there is no perceptible unemployment.

Fortunate it is, therefore, as a corrective of that greatest of all evils—unemployment, that the purchasing power of the people generally is opening up new lines to afford employment to those being separated from their former industry. Then again many of the separations are among those older in years whose needs are less than those of the younger men with families, and the pension plan which is quite general in industry is helping to take care of those men who have been permanently released. As indicating the economic importance of these plans, Mr. A. H. Young estimates that annual industrial pensions alone paid throughout the United States amount to over $50,000,000.

Another factor that has helped to smooth adjustments between the old and new industries is the generally high saving power of the wage earner during this time of employment. This has been encouraged by savings plans, stock distribution, and other facilities for thrift and investment which have aided employes in tiding them over from one industry to another. And industry itself is equipped today to be of service in this field by turning the efforts of its employment department from recruiting to placement on the outside.

The growing use of the automobile by the worker has had a tremendous beneficial effect upon the general labor situation. It has largely solved the fundamental problem of transportation for the worker and has greatly widened his working area. He no longer is at the absolute mercy of the neighboring employer for work, but the whole territory for miles around is now his to explore. And the employer, too, has benefited, it has solved for him many of the major social conditions which a hoarded labor force around the plants always presented.

I have cited better management as one of the factors responsible for better labor relations. This generally includes a closer and more scientific administration of the payroll.

The efficiency of the employment department is now measured less by the speed with which it can recruit labor than by the aid that it can give management in avoiding the hiring of unnecessary people by transfer and other measures of labor conservation.

This increased care by management in administering the payroll is due largely to a desire to fortify the buying power of labor by holding to present wage levels in spite of decreasing commodity prices and the need for reducing manufacturing costs.

One of the aims of management in this respect is to obtain stability of employment and full-time wages for those employed. The organization of industry on such a basis that provides steady employment at full-time wages has become recognized as a sound policy from the standpoint of both the worker himself and of the company which employs him, and right here is where safety plays perhaps its most important rôle in the field of labor relations.

The necessity today for the high purchasing power of labor previously referred to becomes more significant in view of the fact that industry is organized on a mass production basis and this naturally requires mass buying. Perhaps this is one of the most important trends in the economies of this labor situation, and in every labor policy today this element is basic. The ability to buy by the greatest number is of uppermost concern to the entire business world. Our industries have ceased to function solely or mainly to supply the needs of the wealthy classes. These needs would not be sufficient to maintain even a fraction of our present productive capacity. It is, therefore, imperative that we have a high and sustained buying power by the masses of the people including the wage earners. Industry generally is alive to the value of high purchasing power for its workers and has adopted the policy of paying high wages. These high wages coupled with the decline in living costs over the last few years have

been a most powerful factor in extending markets and increasing the standard of living of workers. It is, therefore, evident that accidents as they affect this buying power are of greater concern today than ever before and that their elimination is not only desired but urgently required.

Often overlooked is a further contribution by industry toward the purchasing power of labor through certain personnel activities that it has quite generally adopted. Among these activities is the practice of making up to employees a substantial part of losses in wages, that would otherwise be sustained through sickness and accidents, by the payment of relief and insurance benefits and workmen's compensation. This policy usually has been thought of from the standpoint of its advantages to the workers alone. Its importance as a means of helping to sustain purchasing power and thereby benefit general business has not been fully appreciated.

The most important contribution to the present state of affairs is that which is due to the coöperative relationship now generally existing between employers and employees. To reach the present basis industry has passed through several more or less clearly defined cycles: the first, of comparative indifference to the worker's relationship to the company which employed him, other than as a cog in the machine; the second, of realization on the part of labor of its economic power and consequent conflict with capital by reason of the fact that their mutual interests in industry were neither seen nor understood; the third, of enlivened interest on the part of management in the human side of business and on the part of the workers in the prosperity of the business in which they are engaged.

The third, or coöperative phase, is manifested on every side today. Indeed the company which is not striving for good relations today is the exception.

Safety is wholly non-controversial; it is beneficial to employee and employer alike and has no negative values. It is perhaps the happiest medium through which may be expressed the mutuality of interest of employees and employers. Organized safety work began more than twenty years ago, and in my own industry largely under the inspiring example of the United States Steel Corporation, it stands as a beacon light of progress. One of its prime factors has been the work of the safety committees, composed of workmen or of workmen and foremen and this was really the first widespread demonstration of mutuality of concern and purpose on the part of employers and employees in American industry. This evolution into the present era of coöperation is not a haphazard result. It is definitely the joint product of

the management group in American enterprise acting with intelligent labor leadership and is perhaps the most conspicuous and constructive accomplishment of employee-management relations.

How closely safety is linked with this development is seen in the similarity between the technique of safety work and the technique of good management. Foremost industrial leaders today view safety as much a part of the day's work as any other manufacturing problem.

Industry cannot operate efficiently and leave out safety, nor can business properly consider safety without relating it to the whole picture of the responsibility of plant operation in the most economical and efficient manner. We have in the past continually stressed the importance of reducing accidents mainly from a welfare or humanitarian standpoint. I do not fear that we will ever take a backward step in this regard, but let us in the future give our safety or accident-prevention work a new stimulus, let us consider it as an important factor in our whole program of greater manufacturing economy.

The accident-prevention movement can have a tremendously beneficial influence on general business, every accident that is avoided not only benefits the workman from a physical and monetary standpoint but it results in a direct contribution to general business. I know of an accident-prevention campaign recently inaugurated that in the course of only nine months resulted in a saving to employees in wages alone of nearly a million dollars and the savings to the company are also substantial. Without detracting in any way from the broad humanitarian aspects of this work does not a consideration of the economic aspects of what this million dollars means in sustained purchasing power, in providing steady employment and keeping the wheels of industry moving furnish a new measure of appraisal of the important place which safety holds in the sphere of labor relations.

Good safety is necessarily a component of good labor relations and good labor relations spell safety in a much larger sense than as applied to mere accident prevention.

He would indeed be a brave man who would attempt to place an absolute economic value on the development in good labor relations in American Industry over the last decade or two, but it is a certainty that the wise attitude of coöperation and conciliation generally existing between management and labor in this country has been one of the most powerful factors in helping American Industry to achieve the leadership which it enjoys today. If we would know what might have been, all we have to do is to examine the records where such coöperation has not existed to see the full effect of conflict, misery, economic suffering and business stagnation.

Good labor relations mean the safety and security of our social, economic, and political well-being. It follows, therefore, that those who are bending their efforts to rid industry of the waste occasioned by accidents are engaged in a work that is essential to economic progress.

THEY PUT SAFETY FIRST*

The Griffin Manufacturing Company, of Erie, reports a marked reduction in accidents in the last 3 years. In 1926 this plant experienced 95 lost-time accidents with an average of 464 men; in 1927, 56 lost-time accidents with an average of 510 men; and for the 6-month period to June 30, 1928, only 17 lost-time accidents.

The Powers Accounting Machine Division of Remington Rand Incorporated, at Kingston, reports that installation of various safety devices, and the operation of a safety committee have reduced disability accidents 50 per cent in 1928 up to August 1st in comparison with the same period of 1927. This concern employs 323 males and 85 females.

The Middleburg Spinning Mills, Incorporated, of Kraemer, report not a single lost-time accident since 1924. This concern had one lost-time accident in 1923 and one in 1924. Both of these accidents are reported to have been due to "horse play" in the plant.

The B. Edmund David Spinning Mill, at Middleburg, with 182 employees working 182 days had one lost-time accident in 1928 up to September 4th.

The Corning Glass Works, of Wellsboro, reports 3 lost-time accidents among 165 employees in 1928 up to September 4th.

The Grasselli Powder Company, of Sinnamahoning, manufacturers of high explosives, with 100 employees, reports one lost-time accident in 1928 up to September 8th.

The Glen Riddle Mills, at Glen Riddle, with 100 male and female employees working an average of 304 days a year, report one lost-time accident from January 1 to August 6, 1928. The Superintendent,

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* This will be a monthly feature in LABOR AND INDUSTRY. Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication. Address: Director, Bureau of Inspection, Department of Labor and Industry, or your Divisional Supervisor of the Bureau.

Mr. J. E. Burnley, is so much impressed by results of a modified safety organization, under which this record was achieved, that he is preparing to expand it into a full-fledged committee.

A school of safety instruction established by the Philadelphia Rubber Company, at Oaks, this year is credited with having already accomplished a substantial reduction in accidents. In 1927 this concern had 48 lost-time accidents among 293 employees. In 1928, up to August 20th, there were 9 lost-time accidents recorded among 244 employees.

The New Castle Plant No. 3 of the Lehigh Portland Cement Company, on July 22d completed two years without a single lost-time accident among an average working force of 220 men. This plant won the Portland Cement Association Trophy in 1927. Major Henry A. Reninger, safety head of the Lehigh Portland Cement Company, reports that 5 of the Pennsylvania plants, with a total of 1,020 men, completed the first 7½ months of 1928 without a lost-time accident. These plants are Ormrod No. 3, Fogelsville, Bath, Sandts Eddy, and New Castle No. 3.

Mr. C. P. Fiske, Superintendent of Service for the New Jersey Zinc Company, at Palmerton, reports that full credit was not given the company in the publication of its accident record in the Department Bulletin of July, 1928. The correct figures show a reduction of 77 per cent in lost-time injuries between 1922 and 1927. This same comparison applied to lost-time injuries per 10,000 hours worked during the first 6 months of 1928 shows a reduction rate of 93 per cent.

REVIEW OF INDUSTRIAL STATISTICS

Prepared by

The Bureau of Statistics

The Labor Market

Reports on employment received at the Department of Labor and Industry during September tend to substantiate the opinions expressed rather generally and frequently by business men and tradesmen lately in the terms, "Business seems slightly improved" and "Things are picking up a little." The September report for State Employment offices shows the lowest ratio of applicants for work to jobs open since May, 1927. The ratio of the number of applicants registered for every 100 places open for September was 185 as compared with 201 for August, an 8 per cent decrease, and as compared with 247 for September, 1927, a 25 per cent reduction. According to the reports submitted from State Employment offices located in 14 industrial centers of the State, the surplus of unemployed workers over open jobs has been decreasing steadily for the last three months.

During the five weeks covered by the September report, 10,538 persons applied for work at State Employment offices, calls for 5,699 workers were received from employers, and 4,355 persons were actually placed in employment. This decided improvement in the employment situation is perhaps more readily understood by direct comparison with data for September last year. During September, 1927, State Employment offices reported 12,668 applications for employment, 5,136 calls from employers for workers, and only 3,963 placements. The ratio of applicants per 100 placements for September, 1928, was 242 as compared with 320 for September, 1927, an improvement of nearly 25 per cent. In other words, there were actually 17 per cent fewer applicants for work at State Employment offices in September, 1928, than in September, 1927, while the number of jobs open was 11 per cent greater than last year, and the number of persons placed in employment through State Employment offices during September was 9 per cent higher than the total for September last year.

The largest increase in demand for workers during September was shown for the manufacturing, the transportation, and the commercial industries. The increased demand for workers in manufacturing industries was small, but frequent orders were received from the foundry, machinery manufacture, and electrical goods groups in the metal in-

dustry; and from the chemical and leather industries. Increased freight movements, particularly of coal, helped employment in the transportation industry considerably. Employment in car repair shops, however, fell off slightly. The demand for construction workers also was slightly below that of August.

The most significant feature of the Employment Office report for September is the increased number of workers required for temporary or casual employment. The September demand for workers needed for short-time employment was nearly double that of August. The availability of temporary work is doing much to relieve the stress of unemployment.

The improvement in employment conditions in various sections of the State is effectively demonstrated by a comparison of the ratios of applicants to open jobs in September with those for August in each of the cities in which full-time State Employment offices are maintained. Employment during September in Allentown, Altoona, Johnstown, and Scranton was greatly improved, while in Erie, Harrisburg, Philadelphia, and Pittsburgh the employment situation showed little change from last month. The ratios of applicants per 100 open jobs as reported for the various cities during September compared with August are as follows:

City	*Ratio for September, 1928*	*Ratio for August, 1928*
Allentown	179	306
Altoona	157	217
Erie	161	157
Harrisburg	126	131
Johnstown	137	250
Philadelphia	171	159
Pittsburgh	272	270
Scranton	223	232
All offices[1]	185	201

Employment, Earnings, and Hours Worked in Manufacturing Industries

Factory employment in Pennsylvania for September showed a gain of 0.7 per cent over August. Wage payments in manufacturing establishments for the first half of September were 0.2 per cent less than for the corresponding period in August. However, manufacturing payrolls for the period September 1-15, 1928, were 1.6 per cent higher than at the same time in 1927. Total hours worked by 473 plants reporting for the first-half of September show a 1.7 per cent decrease compared with August. These declines in hours and wage payments

[1] The ratios for Lancaster, McKeesport, New Castle, Oil City and Williamsport are omitted from the table because the employment offices in those cities are operated on a part-time basis, and the ratio for Reading is excluded because of incomplete reports.

during September are due largely to the general observance by industrial plants of the Labor Day holiday.

Gains in employment were shown for 32 of the 51 industries covered in the report. These gains were recorded as follows: 9 of the 12 industries in the metal products group show gains, 2 of 5 industries in the transportation equipment group, 8 of 11 industries in the textiles group, 2 of 5 industries in the food and tobacco group, 1 of 3 in the building materials group, 1 of 3 in the lumber products group, 4 of 5 in the chemicals group, 3 of 4 in the leather and rubber group, and 2 of 3 in the paper and printing group. The net increase in employment for the 806 plants reporting during September was approximately 1,500 workers.

Of the metal industries, largest gains in employment were shown for the stove and furnace, foundry, electrical apparatus, and engine and pump manufacturing groups. The increases for stove works and foundries were due to the reopening of several plants following partial shut downs during the summer months. Production of radio supplies and electric batteries was amazingly high during September. These two industries employed many new workers during September and attained new high marks in employment.

Increased employment was general throughout the engine and pump manufacturing industry. One firm found it necessary to increase working hours from 45 to 50 a week.

The largest slump in employment for the metals group was shown for blast furnaces with a 9.5 per cent decline compared with last month. Three of the nine firms included in this group have no furnaces in operation and two of the three furnace companies have virtually been closed down for nearly a year.

Automobile factories continued to show levels of employment approximately 20 per cent in excess of last year. Work in railroad car shops was slack, especially the repair shops in the middle and western sections of the State. Business in the eastern shops seemed somewhat improved. Employment in shipyards was slightly better than in August, but work in the shipbuilding industry is still much below normal.

Seasonally increased business was reported for the men's and the women's clothing industries. Two factories manufacturing women's apparel that were closed during August reopened in September with normal employment.

Candy manufacture showed a substantial gain, and nearly all factories reported increased employment. Several factories reported considerable overtime work in addition to a 55-hour week. The arrival of

cooler weather brought the usual decrease in ice cream manufacture. A 10 per cent employment decline was reported for this industry.

Cement production dropped sharply in September with a 10 per cent decrease in employment. The September level of employment for cement plants was approximately 25 per cent below last year.

Nearly all furniture factories showed increased employment for September. Several factories went on an 11-hour day schedule.

Increased employment also was reported for the explosive manufacturing, petroleum refining, and leather goods industries.

Construction and contracting employment held at practically the same level as in August.

Early fall activity in manufacturing has shown a more rapid growth than last year. And while manufacturing employment during the summer months of 1928 was considerably less than last year, the employment index for September is less than one per cent below the index number for September, 1927, and is only 10.2 per cent below the index for September, 1926. The employment outlook as pictured in the September reports certainly is more encouraging than it has been for some months.

Industrial Accidents and Compensation Costs

A very substantial reduction in industrial accidents in Pennsylvania was effected during the month of September. According to reports received at the Bureau of Workmen's Compensation, 150 workers were killed and 12,747 were injured during September while engaged in the regular duties of their occupations. These accident totals for September are considerably less than the totals for August. Fatal accidents in September were 26, or 14.8 per cent less than in August, and non-fatal accidents were 886, or 6.5 per cent less. September also shows a decline in accidents as compared with September last year. Fatal accidents were 10 less than in September, 1927, and non-fatal injuries were 532 less.

It is interesting to consider the industries in which these accident decreases occurred. The industrial group, comprising the construction, manufacturing, and commercial industries, shows a decrease of 5 fatal and 876 non-fatal accidents compared with last month. The coal mining group shows a reduction of 19 fatal and 65 non-fatal accidents. The third group, which includes all transportation and public utility industries, shows a reduction of 2 fatal accidents, but the non-fatal total for this group is 55 higher than last month.

Credit for the best showing in accident reduction for September is due the industrial group. A continued reduction of accidents has been shown by the industrial group, dating from the time the Bureau of

Inspection began its active campaign for safety organization and accident prevention in small plants. This offers conclusive proof of what can be accomplished through concerted safety effort when directed into proper channels. Safety efforts in industry when stimulated and guided by the State's safety inspection service have no limits in their possibilities for accident reduction.

The 69 fatalities reported for the industrial group during September occurred in the following industries: construction and contracting 25, a gain of 2 over last month; manufacturing 29, a decrease of 5; quarries one, or one less than in August; trade 3, the same as last month; state and municipal 3, a decrease of 4; and miscellaneous 8, a gain of 3. The 25 fatalities reported for the construction and contracting industry was the highest number for this year and is more than were reported during September, 1927. Eleven of these 25 deaths were due to falls of persons—6 from scaffolds, 2 from roofs, one from a ladder, one from a wall opening, and one from a fall on the level. A striking example of how seemingly inconsequential carelessness on the part of one worker may result in serious injury or death to another is given in the report of one of the scaffold accidents. In a steel erection operation, riveters dropped a hot rivet which unobserved fell on a needle beam scaffold where it burned through a 1½″ hitch rope and caused the scaffold to drop sending two men to their deaths 40 feet below.

Sixty-one fatalities were reported from the coal mining industry, 37 from anthracite mines and 24 from bituminous mines. The fatal total for anthracite mines is 6 higher than last month, while the total for bituminous mines is 25 less than in August. More than half of the coal mining deaths were due to falls of coal or rock from the roof or face of the mine workings. Twenty per cent were due to mine car accidents and about the same proportion were due to blasts or gas explosions. These three causes of accidents are responsible for 90 per cent of all fatal accidents in coal mines.

Transportation lines reported 14 fatalities, the same number as last month. Ten were killed on steam railroads and 4 on street railway lines.

The record of accidents for the period, January-September, 1928, when compared with the accident record for the first 9 months in 1927, shows that Pennsylvania has had the good fortune to experience a 7 per cent decrease in accidents for the first 9 months of the year. It is true this record of accident reduction is somewhat marred by the increase of fatal accidents in coal mines, but since this increase was due to a single mine disaster, it can scarcely detract from the otherwise

enviable accident-reduction record established. The accident figures for the three main groups for the first 9 months in 1928 as compared with the record for the first 9 months last year are as follows:

Industry Group	Nine Months, 1928	Nine Months, 1927	Increase or Decrease
Industrial:			
Fatal accidents	633	663	— 30 (4.5%)
Non-fatal accidents	69,216	73,049	—3,833 (5.2%)
Coal mining:			
Fatal accidents	817	680	+ 137 (20.1%)
Non-fatal accidents	35,277	37,761	—2,484 (6.6%)
Transportation and public utilities:			
Fatal accidents	161	207	— 46 (22.2%)
Non-fatal accidents	7,076	9,610	—2,534 (26.4%)
All groups:			
Fatal accidents	1,611	1,550	+ 61 (3.9%)
Non-fatal accidents	111,569	120,420	—8,851 (7.4%)

Compensation agreements were approved in 6,667 cases during September, 1927, involving payments to injured workers or their dependents in the amount of $1,162,274. This amount was made up as follows:

107 fatal cases	$416,783
252 permanent disability cases	284,751
6,308 temporary disability cases	460,740

The 252 cases of permanent disability compensated during September included awards for the loss, or loss of use of, 40 eyes, 2 arms, 21 hands, 114 fingers, 84 part-fingers, 13 legs, and 12 feet. Included among these losses were 5 cases of permanent total disability. Two miners were blinded by premature blasts, one in the anthracite industry and one in a bituminous mine. Another anthracite miner lost both hands as the result of a gas explosion. Another, a bituminous miner, had both legs crushed in a fall of coal. The fifth case was that of a quarry worker who, although not totally blinded, lost the use of his sight for industrial purposes in a blasting accident. Compensation for facial disfigurement was awarded in 8 cases and for miscellaneous permanent total disability in 7 cases.

The average length of disability for the temporary disability cases compensated during September was 42 days, the same as for August cases. The average duration of disability for all temporary cases compensated during the first 9 months in this year was 46 days as compared with 44 days for the temporary disability cases compensated during the corresponding period in 1927.

Compensation awards for the first 9 months in 1928 total $11,766,060, a gain of $1,754,527, or 17.5 per cent, over the awards for the first 9 months in 1927.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF SEPTEMBER, 1928
(Five Weeks)

INDUSTRIES	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	10,538	6,616	3,922	5,699	3,997	1,702	6,188	4,386	1,802	4,355	3,188	1,167
Total: Industrial Group (skilled)	4,041	2,845	1,196	1,793	1,424	369	2,144	1,673	471	1,220	1,021	199
Building and construction	510	510	.....	311	311	.....	334	334	.....	165	165	.....
Shipbuilding	222	222	.....	151	151	.....	180	180	.....	128	128	.....
Chemicals and allied products	28	28	.....	18	18	.....	22	22	.....	16	16	.....
Clay, glass and stone products	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clothing	21	14	7	12	7	5	13	7	6	10	7	3
Textiles	54	28	26	17	4	13	12	1	11	5	1	4
Food and kindred products	42	38	4	19	10	9	24	14	10	9	7	2
Leather, rubber and composition	47	27	20	27	11	16	37	19	18	21	6	15
Lumber, woodwork and furniture	53	53	.....	17	17	.....	12	12	.....	9	9	.....
Paper and printing	31	24	7	21	15	6	20	14	6	15	9	6
Metals and metal products	734	715	19	466	453	13	563	550	13	320	312	8
Mines and quarries	8	8	.....	4	4	.....	5	5	.....	4	4	.....
Transportation and public utilities	241	225	16	73	67	6	89	80	9	48	46	2
Hotel and restaurant	482	137	345	142	60	82	155	66	89	89	46	43
Wholesale and retail trade	202	94	108	92	23	69	110	37	73	56	16	40
Miscellaneous	1,366	722	644	423	273	150	568	332	236	325	249	76
Total: Other Groups	6,497	3,771	2,726	3,906	2,573	1,333	4,044	2,713	1,331	3,135	2,167	968
Professional and technical	547	372	175	170	136	34	251	203	48	73	56	17
Agriculture	20	20	.....	13	13	.....	11	11	.....	8	8	.....
Semi-skilled	1,756	592	1,164	959	291	668	937	294	643	544	189	355
Unskilled	2,752	2,424	328	1,815	1,718	97	1,941	1,836	105	1,618	1,555	63
Casual and day workers*	1,422	363	1,059	949	415	534	904	369	535	892	359	533
August, 1928	7,953	5,254	2,699	3,954	2,911	1,043	4,430	3,194	1,236	2,958	2,262	696
July, 1928	8,243	5,646	2,597	4,010	3,095	915	4,443	3,367	1,076	3,069	2,393	676
June, 1928	10,916	7,104	3,812	4,806	3,340	1,466	5,256	3,711	1,545	3,598	2,595	1,003
September, 1927	12,668	8,627	4,041	5,136	3,202	1,934	5,321	3,466	1,855	3,963	2,657	1,306
September, 1926	14,365	9,850	4,515	11,645	8,035	3,610	10,359	7,790	2,569	8,780	6,730	2,050
September, 1925	14,139	10,009	4,130	9,541	7,011	2,530	9,735	7,325	2,410	8,427	6,414	2,013

*The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended Sept. 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: Sept. 1928	EMPLOYMENT: Per cent change compared with: Aug. 1928	EMPLOYMENT: Per cent change compared with: Sept. 1927	PAYROLLS: Total weekly payroll week ended Sept. 15, 1928	PAYROLLS: Index numbers 1923-1925=100: Sept. 1928	PAYROLLS: Per cent change compared with: Aug. 1928	PAYROLLS: Per cent change compared with: Sept. 1927	AVERAGE WEEKLY EARNINGS— week ended: Sept. 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: Aug. 15, 1928
ALL INDUSTRIES (51)	806	265,055	89.3	+ 0.7	— 0.9	$6,761,511	90.7	— 0.2	+ 1.6	$25.51	$25.71
Metal products:	236	109,329	88.9	+ 2.2	+ 3.6	2,982,495	90.9	— 0.5	+ 9.4	27.28	28.05
Blast furnaces	9	1,791	40.9	— 9.5	—29.0	52,249	43.2	—11.5	—25.9	29.17	29.85
Steel works and rolling mills	44	53,397	77.3	+ 0.1	— 4.8	1,477,413	78.7	— 4.6	+ 1.2	27.67	29.01
Iron and steel forgings	10	1,834	85.2	+ 3.5	+12.1	48.448	92.9	+ 7.4	+22.6	26.42	25.47
Structural iron work	10	4,536	107.5	+ 1.5	+12.1	121,571	104.5	— 2.3	+18.5	26.80	27.87
Steam and hot water heating appliances	17	4,527	94.5	— 2.4	+ 2.8	130,596	100.3	— 5.6	+ 9.4	28.35	29.86
Stoves and furnaces	9	907	76.3	+13.0	—13.8	26,269	77.3	+22.5	—12.6	28.96	26.75
Foundries	39	7,862	88.1	+ 7.0	+ 3.3	210,803	87.9	+ 7.1	+ 5.5	26.81	27.03
Machinery and parts	40	9,470	103.1	+ 0.5	+10.0	291,074	111.4	+ 0.4	+20.8	30.74	30.75
Electrical apparatus	17	13.960	207.2	+12.2	+63.1	343,162	224.3	+12.6	+64.6	24.58	24.48
Engines and pumps	10	3,556	96.3	+ 6.8	+11.7	99,408	99.8	+ 3.7	+24.9	27.96	28.80
Hardware and tools	20	6,344	81.8	+ 1.2	— 6.4	152,220	84.8	+ 2.7	+ 0.7	23.99	23.68
Brass and bronze products	11	1,145	104.6	— 4.3	+25.6	29,282	100.8	+ 2.2	+24.0	25.57	23.96
Transportation equipment:	40	28,000	67.8	— 0.9	—16.5	795,214	66.2	— 0.5	—17.3	28.40	28.30
Automobiles	6	4,582	89.9	— 1.0	+18.9	132,420	90.1	— 2.4	+30.0	28.90	29.33
Automobile bodies and parts	11	7,460	88.9	+ 1.4	+28.5	229,269	84.4	+ 1.3	+32.3	30.73	30.75
Locomotives and cars	13	11,629	56.7	— 1.7	—25.3	315,964	53.3	— 3.1	—23.6	27.17	27.56
Railroad repair shops	6	3,126	77.5	— 6.2	— 6.2	80,244	75.1	— 7.2	—10.2	25.67	25.93
Shipbuilding	4	1,203	23.0	+ 8.5	—64.3	37,317	24.5	+47.6	—60.8	31.02	22.73
Textile products:	163	52,634	94.5	— 0.8	— 3.0	1,146,877	99.8	+ 1.8	— 1.8	21.79	21.23
Cotton goods	14	3,334	76.2	+ 2.3	—18.8	75,112	73.9	+ 4.8	—21.3	22.53	21.99
Woolens and worsteds	15	5,785	85.1	— 4.8	—11.5	122,302	84.6	— 1.9	—16.7	21.14	20.39
Silk goods	39	16,633	98.3	— 3.5	— 0.2	312,576	100.9	— 0.3	+ 2.7	18.79	18.22
Textile dyeing and finishing	9	1,804	113.1	+ 2.1	— 2.1	47,675	125.3	+ 3.5	+12.5	26.43	26.10
Carpets and rugs	10	2,527	79.2	+ 1.8	— 3.6	58,662	72.8	— 2.0	— 2.9	23.21	24.11
Hats	4	3,842	96.6	— 0.1	— 1.9	98,511	97.2	+ 0.5	— 4.4	25.64	25.49
Hosiery	27	11,017	108.6	+ 0.6	+ 1.4	302,813	133.4	+ 5.3	+ 6.9	27.49	26.25
Knit goods, other	15	3,033	85.7	+ 1.7	+10.6	52,840	84.5	— 0.1	+14.3	17.42	17.76
Men's clothing	10	1,093	94.6	+ 5.9	—12.1	21,619	94.5	+ 4.2	—21.0	19.78	21.48
Women's clothing	9	1,171	110.5	+ 6.0	+11.7	17,522	115.7	+10.5	+ 6.8	14.96	14.36
Shirts and furnishings	11	2,395	92.3	+ 2.9	— 4.6	37,245	89.2	+ 7.9	+ 3.1	15.55	14.86

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended Sept. 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: Sept. 1928	EMPLOYMENT: Per cent change compared with: Aug. 1928	EMPLOYMENT: Per cent change compared with: Sept. 1927	PAYROLLS: Total weekly payroll week ended Sept. 15, 1928	PAYROLLS: Index numbers 1923-1925=100: Sept. 1928	PAYROLLS: Per cent change compared with: Aug. 1928	PAYROLLS: Per cent change compared with: Sept. 1927	AVERAGE WEEKLY EARNINGS— week ended: Sept. 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: Aug. 15, 1928
Foods and tobacco:	102	23,297	99.2	— 0.4	— 0.8	$478,062	100.0	+ 2.0	+ 0.6	$20.52	$20.05
Bread and bakery products	30	4,315	104.3	— 0.7	— 3.8	123,647	99.3	— 0.2	— 3.8	28.66	28.51
Confectionery	14	4,484	97.2	+ 7.9	— 1.6	82,658	101.1	+ 4.2	— 6.6	18.43	19.09
Ice cream	11	1,422	95.7	—10.1	+ 3.5	45,037	102.4	—10.3	+ 1.0	31.67	31.74
Meat packing	14	2,067	95.2	+ 1.9	— 1.9	61,681	96.9	+ 8.3	+ 1.9	29.84	28.15
Cigars and tobacco	33	11,009	100.5	— 2.3	— 1.5	165,039	102.0	+ 4.2	+ 1.8	14.99	14.08
Stone, clay and glass products:	66	15,886	83.7	— 2.8	—11.3	423,505	81.8	— 6.3	—13.4	26.66	27.68
Brick, tile and pottery	30	4,737	90.2	— 1.8	— 7.5	113,720	87.3	+ 0.9	— 6.6	24.01	23.38
Cement	14	5,630	78.5	—10.4	—24.1	177,444	85.0	—15.2	—24.2	31.52	33.24
Glass	22	5,519	90.5	+ 5.6	+ 2.4	132,341	80.9	+ 1.5	— 2.5	23.98	24.97
Lumber products:	43	5,103	84.6	+ 0.6	— 6.5	114,113	88.5	+ 2.5	— 6.8	22.36	21.91
Lumber and planing mills	17	2,387	79.2	— 1.7	+ 1.8	50,040	80.8	— 3.5	— 1.8	20.96	21.36
Furniture	20	2,011	85.0	+ 6.4	—13.2	51,570	92.0	+12.9	— 9.5	25.64	24.19
Wooden boxes	6	705	110.5	— 7.9	—13.7	12,503	121.6	— 9.5	—14.9	17.73	18.05
Chemical products:	48	11,167	97.9	+ 2.9	+ 5.4	316,997	104.0	+ 0.9	+ 4.0	28.39	28.98
Chemicals and drugs	28	1,450	94.1	+ 6.6	+ 6.6	38,423	93.5	+ 2.4	+ 3.8	26.50	27.55
Coke	3	2,729	117.9	— 0.4	+15.5	78,367	119.9	— 0.4	+12.6	28.72	28.71
Explosives	3	521	120.3	+ 1.7	— 2.6	13,508	112.9	+12.9	+ 1.3	25.93	23.37
Paints and varnishes	9	996	123.0	+ 0.7	—10.2	25,369	121.4	— 2.5	— 5.9	25.47	26.33
Petroleum refining	5	5,471	89.1	+ 4.5	+ 4.8	161,330	96.5	+ 1.0	+ 2.2	29.49	30.54
Leather and rubber products:	51	11,449	98.8	+ 1.0	— 1.1	265,846	104.8	+ 1.0	— 0.5	23.22	23.22
Leather tanning	17	5,786	104.6	+ 0.5	+ 0.3	149,566	109.9	+ 0.4	+ 1.4	25.85	25.86
Shoes	23	4,124	92.1	+ 1.3	— 2.2	74,427	93.7	— 0.5	+ 6.3	18.05	18.36
Leather products, other	7	621	115.0	+ 8.7	— 6.2	13,534	109.0	+12.1	— 3.2	21.79	21.15
Rubber tires and goods	4	918	78.2	— 1.9	— 8.6	28,319	98.6	+ 3.0	— 2.8	30.85	29.38
Paper and printing:	57	8,190	93.5	+ 0.3	— 2.1	238,402	103.6	— 0.9	— 0.2	29.11	29.49
Paper and wood pulp	13	3,661	84.3	— 1.1	— 4.4	102,688	92.1	— 4.6	— 6.1	28.05	29.11
Paper boxes and bags	6	729	98.0	+ 4.6	— 1.7	10,664	110.1	+ 2.1	— 0.1	14.63	14.98
Printing and publishing	38	3,800	104.3	+ 0.8	+ 0.6	125,050	115.3	+ 2.0	+ 5.5	32.91	32.54
Construction and contracting*	31	4,985	103.9	— 0.5	— 2.9	126,235	89.7	— 2.7	—11.2	25.32	25.70

*Not included in total for all industries.

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		Sept. 15, 1928	August 15, 1928	Per cent change	Sept. 15, 1928	August 15, 1928
ALL INDUSTRIES: (46)	473	7,248,836	7,375,657	— 1.7	$.566	$.555
Metal products:	170	3,504,023	3,594,110	— 2.5	.601	.584
Blast furnaces	7	79,534	91,414	—13.0	.590	.585
Steel works and rolling mills	27	1,744,109	1,832,455	— 4.8	.624	.617
Iron and steel forgings	8	71,731	68,190	+ 5.2	.574	.569
Structural iron work	7	93,063	94,718	— 1.7	.571	.590
Steam and hot water heating appliances	11	126,508	145,621	—13.1	.605	.593
Foundries	34	333,010	329,831	+ 1.0	.599	.469
Machinery and parts	32	395,579	396,185	— 0.2	.614	.611
Electrical apparatus	14	253,311	250,031	+ 1.3	.515	.510
Engines and pumps	10	167,389	160,179	+ 4.5	.594	.599
Hardware and tools	13	206,557	193,339	+ 6.8	.538	.533
Brass and bronze products	7	33,232	32,147	+ 3.4	.544	.555
Transportation equipment:	30	903,803	907,466	— 0.4	.625	.621
Automobiles	6	203,252	211,568	— 3.9	.652	.641
Automobile bodies and parts	8	356,729	355,433	+ 0.4	.616	.610
Locomotives and cars	8	208,487	217,553	— 4.2	.586	.593
Railroad repair shops	4	80,599	84,764	— 4.9	.665	.667
Shipbuilding	4	54,736	38,148	+43.5	.682	.663
Textile products:	71	1,086,608	1,096,646	— 0.9	.453	.441
Cotton goods	10	52,480	52,733	— 0.5	.465	.466
Woolens and worsteds	9	112,036	122,058	— 8.2	.460	.491
Silk goods	21	410,959	414,990	— 1.0	.426	.409
Textile dyeing and finishing	4	28,824	33,088	—12.9	.489	.490
Carpets and rugs	5	72,908	71,130	+ 2.5	.556	.517
Hosiery	6	278,036	271,589	+ 2.4	.504	.482
Knit goods, other	8	48,550	49,289	— 1.5	.389	.392
Women's clothing	4	28,655	30,359	— 5.6	.390	.377
Shirts and furnishings	4	54,160	51,410	+ 5.3	.294	.289

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA—*(Concluded)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		Sept. 15, 1928	August 15, 1928	Per cent change	Sept. 15, 1928	August 15, 1928
Foods and tobacco:	47	348,202	348,001	+ 0.1	$.482	$.486
Bread and bakery products	20	113,114	110,316	+ 2.5	.512	.517
Confectionery	6	92,870	93,246	— 0.4	.404	.418
Ice cream	8	51,630	58,186	—11.3	.558	.544
Meat packing	9	60,995	57,466	+ 6.1	.551	.546
Cigars and tobacco	4	29,593	28,787	+ 2.8	.342	.343
Stone, clay and glass products:	35	421,709	451,987	— 6.7	.551	.543
Brick, tile and pottery	15	135,478	136,680	— 0.9	.531	.520
Cement	8	170,494	198,221	—14.0	.543	.537
Glass	12	115,737	117,086	— 1.2	.586	.579
Lumber products:	33	137,998	130,564	+ 5.7	.495	.489
Lumber and planing mills	13	43,715	44,219	— 1.1	.530	.526
Furniture	16	85,743	76,402	+12.2	.488	.481
Wooden boxes	4	8,540	9,943	—14.1	.385	.389
Chemical products:	20	306,386	295,265	+ 3.8	.575	.586
Chemicals and drugs	12	51,338	49,464	+ 3.8	.488	.489
Paints and varnishes	5	38,430	39,804	— 3.5	.563	.562
Petroleum refining	3	216,618	205,997	+ 5.2	.598	.614
Leather and rubber products:	27	251,876	256,715	— 1.9	.485	.473
Leather tanning	9	108,337	113,058	— 4.2	.531	.529
Shoes	10	86,198	87,900	— 1.9	.368	.354
Leather products, other	4	8,466	7,925	+ 6.8	.554	.525
Rubber tires and goods	4	48,875	47,832	+ 2.2	.579	.574
Paper and printing:	40	288,231	294,903	— 2.3	.588	.606
Paper and wood pulp	10	179,539	188,240	— 4.6	.523	.552
Paper boxes and bags	3	8,282	6,620	+25.1	.334	.371
Printing and publishing	27	100,410	100,043	+ 0.4	.727	.720
Construction and contracting*	25	179,388	181,135	— 1.0	.610	.625

*Not included in total for all industries.

EMPLOYMENT AND EARNINGS IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS— week ended	
		No. of wage earners week ended Sept. 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended Sept. 15, 1928	Index numbers 1923-1925=100				
			Sept. 1928	Per cent change compared with Aug. 1928	Per cent change compared with Sept. 1927		Sept. 1928	Per cent change compared with Aug. 1928	Per cent change compared with Sept. 1927	Sept. 15, 1928	Aug. 15, 1928
Allentown-Bethlehem-Easton	79	20,963	86.3	— 4.7	— 6.6	$525,785	78.7	— 6.4	— 7.2	$25.08	$25.56
Altoona	14	2,229	81.5	— 0.6	.....	48,879	78.7	+ 0.6	.....	21.93	21.65
Erie	11	3,902	98.9	— 0.4	— 0.8	116,516	98.9	— 0.4	— 2.2	29.86	29.91
Harrisburg	34	7,026	96.9	+ 3.0	+ 3.1	155,368	97.2	+ 2.7	+ 1.3	22.11	22.18
Hazleton-Pottsville	21	4,713	101.1	+ 0.3	— 1.7	97,545	92.2	— 0.3	— 2.5	20.70	20.83
Johnstown	13	968	101.4	+ 3.0	—16.3	25,973	90.1	+ 5.9	— 4.7	26.83	26.15
Lancaster	30	4,231	96.2	+ 1.8	— 8.3	87,591	84.5	+ 1.4	—10.8	20.70	20.81
New Castle	11	5,816	107.0	+ 1.4	+ 1.7	169,235	102.8	— 0.4	+12.4	29.10	29.61
Philadelphia	244	90,896	91.0	+ 2.6	— 9.6	2,466,627	83.1	+ 5.1	— 8.8	27.14	26.48
Pittsburgh	91	58,505	88.7	— 0.6	— 5.6	1,601,257	79.2	— 4.3	— 1.6	27.37	28.46
Reading-Lebanon	62	20,533	91.8	+ 0.8	+ 3.0	501,382	85.8	— 4.1	+10.1	24.42	25.68
Scranton	31	4,790	98.9	— 3.3	+ 5.6	85,869	104.3	— 2.3	— 0.3	17.93	17.77
Sunbury	26	8,568	67.6	— 1.9	— 8.7	179,556	69.3	+ 1.8	— 4.7	20.96	20.21
Wilkes-Barre	21	5,610	72.0	— 1.1	— 9.8	106,803	78.3	+ 2.9	— 9.5	19.04	18.28
Williamsport	22	5,279	80.0	+ 2.2	— 8.1	124,075	77.5	— 3.0	— 0.6	23.50	24.79
York	43	6,274	93.9	+ 1.5	— 3.1	127,267	96.0	+ 2.5	0.0	20.28	20.08

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

1928	ACCIDENT REPORTS RECEIVED								AGREEMENTS APPROVED			
	Total		Industrial		Coal Mining		Transportation and Public Utilities		Total	Fatal	Permanent Disability	Temporary Disability
	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal				
July	141	12,291	67	8,111	52	3,346	22	834	7,085	152	227	6,706
August	176	13,633	74	9,093	80	3,757	22	783	6,904	142	300	6,462
September	150	12,747	69	8,217	61	3,692	20	838	6,667	107	252	6,308
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	1,611	111,569	633	69,216	817	35,277	161	7,076	59,585	1,410	2,493	55,682
1927												
July	176	12,548	86	8,219	63	3,328	27	1,001	6,293	198	315	5,780
August	172	13,660	76	8,678	71	3,923	25	1,059	5,872	170	273	5,429
September	160	13,279	63	8,199	73	4,118	24	962	5,966	152	311	5,503
October	161	13,564	75	8,119	75	4,394	11	1,051	5,899	227	293	5,379
November	192	13,087	85	7,935	70	4,230	37	922	5,654	148	207	5,299
December	150	11,619	66	7,091	66	3,699	18	829	6,615	155	342	6,118
Total—1927	2,053	158,690	889	96,194	891	50,084	273	12,412	74,886	2,001	3,479	69,406
*Grand Total	30,466	2,260,525	12,977	1,431,565	12,708	627,071	4,781	201,889	902,662	25,166	26,457	851,039

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

	AWARDED				PAID			
1928	Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded	Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
July	$1,184,414	$532,603	$226,248	$425,563	$996,573	$341,208	$229,802	$425,563
August	1,328,342	514,711	363,471	450,160	1,028,538	311,846	266,532	450,160
September	1,162,274	416,783	284,751	460,740	943,120	247,849	234,531	460,740
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	$11,766,060	$4,919,339	$2,715,281	$4,131,440	$9,124,930	$2,576,237	$2,417,253	$4,131,440
1927								
July	$1,389,540	$604,010	$294,561	$490,969	$1,204,087	$307,034	$406,084	$490,969
August	1,140,955	484,986	271,678	384,291	1,081,893	256,510	441,092	384,291
September	1,058,988	426,309	287,559	345,120	902,607	278,397	279,090	345,120
October	1,120,444	514,306	238,293	367,845	1,017,146	325,006	324,295	367,845
November	1,005,336	511,597	184,903	308,856	824,175	246,964	268,355	308,856
December	1,214,804	431,969	327,799	455,036	983,473	276,085	252,352	455,036
Total—1927	$13,343,489	$5,772,868	$3,266,464	$4,344,157	$11,697,889	$3,492,763	$3,860,969	$4,344,157
*Grand Total	$146,751,144	$70,345,989	$30,596,919	$45,808,236	$102,662,201	$31,288,518	$25,565,447	$45,808,236

*Since the inception of the Act—January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	5	$12,734	1	$2,580	19	$43,574	14	$26,468	30	$50,163
August	14	34,836	11	30,218	21	45,386	15	30,045	58	101,876
September	13	34,216	2	5,101	21	49,222	12	21,774	40	75,053
October	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	98	$247,477	56	$148,869	172	$380,704	135	$260,150	408	$671,385
1927										
July	8	$20,056	6	$14,731	26	$51,976	20	$34,814	46	$65,013
August	13	31,089	6	13,768	22	43,184	13	20,310	51	75,731
September	14	33,780	4	10,169	13	26,602	12	22,607	62	93,165
October	10	25,800	5	11,610	17	36,456	13	23,264	43	61,051
November	11	27,211	1	2,572	14	28,563	6	10,742	31	47,654
December	11	28,380	2	2,440	17	36,215	17	31,594	69	107,843
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,420
*Grand Total	1,347	$2,993,054	951	$2,128,100	3,019	$5,545,903	1,852	$3,087,697	7,456	$10,435,796

*Since the inception of the Act—January 1, 1916. **Multiple losses separated respectively.

**PERMANENT INJURIES—*(Concluded)*

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	96	$38,846	85	$19,030	8	$3,853	6	$29,000
August	110	43,169	96	21,539	15	9,920	9	46,482
September	114	43,892	84	20,391	8	2,811	7	32,291
October								
November								
December								
Total—1928	1,013	$398,176	837	$183,329	120	$53,398	81	$371,793
1927								
July	118	$40,259	104	$19,791	21	$9,072	10	$37,849
August	112	36,970	83	15,624	12	5,310	9	29,692
September	125	45,165	115	21,164	15	6,966	7	27,941
October	124	44,892	102	20,028	7	1,958	3	13,234
November	105	35,481	69	12,444	5	3,840	4	16,396
December	165	56,754	121	23,860	14	6,136	8	34,577
Total—1927	1,502	$509,006	1,202	$226,122	119	$55,331	90	$365,795
*Grand Total	7,776	$2,707,211	6,503	$1,243,771	484	$272,226	518	$2,183,161

*Since the inception of the Act—January 1, 1916. **Multiple losses separated respectively.

Note: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING SEPTEMBER, 1928

Cause	Total of All Industries		Construction and Contracting						Coal Mining				Other		Manufacturing																	
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous		Quarrying and Mining Other Than Coal Mining		Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber and Composition Goods.		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	150	12,747	14	970	8	376	3	504	37	1,946	24	1,746	1	219	29	4,546	2	214	2	393	1	149	..	448	1	131	2	285	1	195	..	206
Working machinery and processes	9	1,066	1	30	1	16	1	15	1	34	2	87	..	12	3	780	..	4	..	30	..	75	..	28	..	32	..	88	..	44	..	69
Boilers and pressure apparatus	2	14	..	2	..	3	..	1	..	1	..	.....	..	.....	2	7	1	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	1	..	.....
Pumps and prime movers	2	36	..	6	..	5	..	5	1	1	..	2	..	2	1	9	..	3	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	1
Transmission apparatus	...	24	..	.....	..	.....	..	.....	..	3	..	3	..	1	..	15	..	1	..	3	..	1	..	2	..	.....	..	2	..	.....	..	.....
Elevators and hoists	3	60	..	4	1	.....	..	1	..	10	..	8	..	.....	..	18	..	.....	..	1	..	1	..	5	..	1	..	.....	..	4	..	.....
Cranes and derricks	7	219	1	21	1	13	..	18	..	9	..	4	..	8	4	127	..	5	..	1	..	.....	..	5	..	1	..	1	..	.....	..	1
Cars and engines	27	857	..	7	..	9	..	4	7	232	6	359	..	13	3	68	..	3	..	23	1	.....	..	2	..	.....	..	1	..	.....	..	.....
Motor vehicles	9	532	..	26	3	39	..	26	..	.....	..	3	..	3	3	162	1	12	..	5	..	1	..	41	..	1	1	3	..	12	..	.....
Other vehicles	...	72	..	1	..	1	..	7	..	.....	..	4	..	1	..	23	..	.....	..	.....	..	.....	..	17	..	.....	..	4	..	.....	..	.....
Hand trucks	1	197	..	12	..	5	..	9	..	2	..	1	..	.....	1	123	..	5	..	25	..	.....	..	13	..	4	..	3	..	11	..	4
Water and air craft	3	6	..	.....	..	.....	..	1	..	.....	3	.....	..	1	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	3	2,795	1	234	..	78	..	114	..	379	..	231	..	68	1	1,141	..	46	..	138	..	21	..	124	..	31	..	75	..	39	..	33
Hand tools	3	1,361	1	96	..	48	..	52	..	221	..	228	..	34	..	437	..	30	..	27	..	12	..	37	..	17	..	42	..	14	..	15
Electricity	6	98	1	1	..	1	..	.....	..	24	1	23	..	2	2	23	..	1	..	5	..	.....	..	1	..	3	..	.....	..	1	..	.....
Explosive substances	11	145	..	5	1	5	..	5	6	55	1	17	1	2	..	31	..	6	..	2	..	.....	..	1	..	.....	..	1	..	1	..	.....
Hot and corrosive substances	1	477	..	61	..	17	..	22	..	11	..	15	..	2	1	274	..	19	1	22	..	6	..	25	..	5	..	1	..	6	..	9
Falling objects	35	1,807	..	87	..	32	..	57	21	571	11	542	..	38	3	379	..	11	..	33	..	3	..	26	1	7	1	21	..	12	..	9
Falls of persons	20	1,515	9	185	1	53	1	74	1	181	..	99	..	16	2	487	..	39	..	33	..	15	..	86	..	16	..	30	1	33	..	30
Stepping upon or striking against objects	1	943	..	164	..	42	..	73	..	140	..	59	..	7	..	290	..	19	..	30	..	8	..	24	..	7	..	10	..	12	..	26
Miscellaneous	8	523	..	28	..	9	1	20	..	72	..	61	..	9	3	151	..	10	1	15	..	6	..	11	..	6	..	3	..	5	..	9

*F.=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING SEPTEMBER, 1928—*(Concluded)*

Cause	Manufacturing—(Concluded)																		Transportation and Public Utilities						Other Industries									
			Metals and Metal Products																								Trading							
	Total		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Retail		Wholesale		State and Municipal		Miscellaneous	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	20	2,461	1	94	4	515	1	529	8	896	3	229	3	198	..	64	10	485	4	150	6	203	..	103	2	539	1	125	3	294	8	541
Working machinery and processes	3	391	..	2	1	78	1	89	1	201	..	18	..	3	..	19	..	2	..	....	..	3	..	9	..	35	..	1	..	4	..	38
Boilers and pressure apparatus	1	6	..	....	..	1	..	2	1	....	..	1	..	2	..	....	..	....	..	....	..	....	..	....	..	....	..	....	..	....	..	....
Pumps and prime movers	...	5	..	....	..	1	..	1	..	2	..	....	..	1	..	....	..	2	..	....	..	....	..	....	..	....	..	....	..	1	..	3
Transmission apparatus	...	5	..	....	..	1	..	2	..	1	..	1	..	....	..	1	..	1	..	....	..	....	..	....	..	1	..	....	..	....	..	....
Elevators and hoists	...	6	..	....	..	....	..	....	..	6	..	....	..	....	..	....	..	....	..	....	..	1	..	1	..	6	..	2	..	....	2	9
Cranes and derricks	4	112	1	6	..	35	..	33	3	31	..	7	..	....	..	1	..	2	..	4	..	1	..	....	..	2	..	2	..	....	1	8
Cars and engines	2	39	..	3	..	14	..	2	..	4	2	16	..	....	..	....	9	145	2	8	..	2	..	....	..	3	..	....	..	3	..	4
Motor vehicles	1	86	..	1	..	6	..	1	..	7	..	4	1	67	..	1	..	3	..	33	..	22	..	2	..	60	1	13	1	74	1	66
Other vehicles	...	1	..	....	..	....	..	....	..	1	..	....	..	....	..	1	..	1	..	....	..	2	..	....	..	12	..	....	..	7	..	13
Hand trucks	1	58	..	1	..	9	..	17	..	24	1	7	..	....	..	....	..	22	..	4	..	1	..	....	..	5	..	3	..	3	..	7
Water and air craft	...	1	..	....	..	1	..	....	..	....	..	....	..	....	..	....	..	....	..	2	..	....	..	....	..	....	..	....	..	....	..	1
Handling objects—by hand	1	614	..	26	1	125	..	147	..	241	..	45	..	30	..	20	..	96	..	43	1	32	..	26	..	149	..	43	..	35	..	126
Hand tools	1	237	..	5	..	38	..	37	1	79	..	41	..	37	..	6	..	51	..	8	..	35	..	16	1	54	..	5	..	34	..	42
Electricity	2	12	..	....	1	2	..	3	1	4	..	3	..	....	..	....	..	....	..	4	2	15	..	....	..	2	..	....	..	1	..	2
Explosive substances	...	19	..	1	..	4	..	3	..	5	..	1	..	5	..	1	..	2	..	3	..	7	..	....	1	3	..	3	1	3	..	4
Hot and corrosive substances	...	180	..	19	..	45	..	60	..	37	..	12	..	7	..	1	..	8	..	1	..	9	..	13	..	6	..	6	..	11	..	21
Falling objects	1	257	..	15	..	74	..	47	1	92	..	26	..	3	..	....	..	23	..	1	..	8	..	2	..	22	..	7	..	6	..	32
Falls of persons	1	198	..	6	..	42	..	27	..	80	..	25	1	18	..	7	1	67	1	20	1	32	..	21	..	107	..	25	..	46	3	102
Stepping upon or striking against objects	...	151	..	3	..	26	..	38	..	54	..	15	..	15	..	3	..	28	..	9	1	20	..	9	..	44	..	10	..	21	..	27
Miscellaneous	2	83	..	6	1	13	..	20	..	27	..	7	1	10	..	3	..	32	1	10	1	13	..	4	..	28	..	5	1	45	1	36

*F.=Fatal. N. F.=Non-fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	161	11,975	12,136
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*307*	*23,887*	*29,194*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	162	14,332	14,494	147	12,539	12,686
	626	*46,081*	*46,707*	*529*	*45,064*	*45,693*	*484*	*40,379*	*40,863*	*516*	*41,930*	*42,446*	*454*	*36,426*	*36,880*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*685*	*54,623*	*55,308*	*593*	*47,354*	*47,947*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	172	12,869	13,041	360	13,041	13,401
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*857*	*67,492*	*68,349*	*953*	*60,395*	*61,348*
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	185	13,441	13,626	191	12,503	12,694
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,042*	*80,933*	*81,975*	*1,144*	*72,898*	*74,042*
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724	141	12,291	12,432
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,218*	*93,481*	*94,699*	*1,285*	*85,189*	*86,474*
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832	176	13,633	13,809
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,390*	*107,141*	*108,531*	*1,461*	*98,822*	*100,283*
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	160	13,279	13,439	150	12,747	12,897
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,550*	*120,420*	*121,970*	*1,611*	*111,569*	*113,180*
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	161	13,564	13,725			
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,711*	*133,984*	*135,695*			
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	192	13,087	13,279			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,903*	*147,071*	*148,974*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	150	11,619	11,769			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,053*	*158,690*	*160,743*			

NOTE:—The figures in italics represent the cumulative totals by months under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building,
Bureau of Bedding and Upholstery,
400 North Third Street,
Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building,
State Workmen's Insurance Fund,
Fourth and Blackberry Streets,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
413 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
306 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
1713 Hazleton National Bank Building.

Johnstown: .....Bureau of Inspection,
427 Swank Building.
State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

Lock Haven: .....State Workmen's Insurance Fund.
214 Vesper Street.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office.
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund.
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office,
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
533 Penn Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund.
418 Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: .....State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.

SAFETY ENGINEERS

The Department of Labor and Industry is anxious to have a correct list of full-time safety engineers employed by establishments in the Commonwealth of Pennsylvania.

The present list of such engineers is fairly accurate, but in order to have an absolutely up-to-date list, it is requested that every firm employing a safety engineer or every safety engineer himself, send to the Department his name, present mailing address, and official title.

Kindly send this information to

JOHN S. SPICER,
Chief, Accident Investigation Section,
Bureau of Inspection,
Department of Labor and Industry,
Harrisburg, Pennsylvania.

LABOR AND INDUSTRY

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CHARLES A. WATERS, *Secretary*

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THE EVE OF THE CAMPAIGN

By Harry D. Immel,

Director, Bureau of Inspection

Pennsylvania's first state-wide industrial safety campaign will start in January. It will continue twelve months.

Most safety engineers believe in intensive plant safety campaigns of much shorter duration. They are probably correct. Perhaps it is not good psychology to maintain the tension of a hard drive over a long period of time.

But when all the diversified industries of a great state are to be taken collectively into a safety campaign, consideration must be given to seasonal activity which varies greatly. Unless the year is rounded out it will be next to impossible to make an accurate estimate of achievement.

The Pennsylvania Department of Labor and Industry asks every individual concern to start the year with a determination to establish a new record for accident reduction in 1929. Intensive campaigns in individual plants may be put on for such periods as seem likely to accomplish the best results.

The Bureau of Inspection asks to be kept advised of progress by reports either to the Director at Harrisburg or through offices of Supervising Inspectors. Records of progress of individual concerns will be given publicity in the Department's monthly bulletin and through the press.

No unit of industry should consider itself too small to enter the campaign. The Department is as much interested in the safety record of the smallest shop as of the greatest. There are many more small factories than large ones in Pennsylvania.

For the success of this campaign percentage of accident reduction for three employes is just as vital as for thirty thousand.

What the safety committee can accomplish in the larger plant, foremen or other individuals, charged with responsibility for accidents, can do in the smaller plants. And the state factory inspector stands ever ready to help them all.

We are on the eve of the campaign. Every accident after January first counts against a perfect score. Much depends on a right beginning. Are you ready?

A PLEDGE OF SAFETY

Since the 1929 State-wide Industrial Safety Campaign in Pennsylvania was first proposed a number of concerns have asked to be put on record as pledging coöperation. It has seemed proper therefore to provide some means of giving the pledge formality.

Accordingly, the Pennsylvania Department of Labor and Industry is having printed posters for shop display which state, "This establishment is 100% pledged to help make Pennsylvania's 1929 Safety Campaign a success."

A pledge for individual workers has also been prepared. It reads, "I pledge myself to do my best in Pennsylvania's Safety Campaign, to be responsible for no accident to myself or to anyone so that life may be happier and labor more profitable for me and my fellow-men."

These individual pledges will be printed on slips of suitable size for insertion in pay envelopes, and space provided for signature. Any concern interested may obtain any quantity required upon application to the Pennsylvania Department of Labor and Industry. These pledges may be distributed and collected in the shop in any way desired, or they may be administered to workers collectively in shop meetings.

Any concern obtaining the individual pledges from its workers is privileged to display the large posters, which also may be had in the quantity required.

Establishments wishing to start the safety year right will make their pledges promptly.

THEY PUT SAFETY FIRST*

The Public Library Building, in Philadelphia, completed last year at a cost of $6,600,000, the construction of which covered a period of 3 years with from 100 to 300 men constantly employed, was erected with only one lost-time accident. This was a temporary disability.

From 50 to 250 workers were employed constantly in the erection of the Scottish Rites Hall, in Philadelphia, completed last November at a cost of $3,000,000. Only one lost-time accident was recorded, this a disability of less than 5 weeks.

When a 92-day record without a lost-time accident was terminated recently at the Midvale Steel Company, the Midvale safety sub-committee sat in judgment on the 9 men who were in the vicinity when a worker had his right foot broken by the fall of a heavy pipe flange. The sub-committee decided that any one of these 9 men could have prevented the accident had he been sufficiently "on the job." Each of them was given a lay-off for one day. The average number of employes engaged in this drive was 1,875. The accident which ended the record came as a great disappointment to the workers who had hoped to break their best previous record of 98 days.

The Baker Steel Company, of Philadelphia, which handles this metal in large sizes, employed 30 men, had 5 lost-time accidents in 1927. Up until June 18th, the company had a clean record for 1928, and was still going. Mr. W. W. Baker, who serves as chairman of the safety committee, attributes the present good record to intensive safety work.

Perkiomen Trunk and Bag Company, Inc., of Pennsburg, employing 141 men and 65 girls, worked 293 days in 1927 with one lost-time accident. On June 7, 1928, the concern was without a single lost-time accident for this year.

The Baeder and Adamson Company, of Philadelphia, manufacturing glue and sand paper, had 6 lost-time accidents in 1927. This year the concern had no lost-time accidents up to June 6th, and was still going. There is an active safety organization.

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*This will be a monthly feature in LABOR AND INDUSTRY. Pennsylvania concerns are invited to submit from time to time safety records that they consider worthy of publication. Address: Director, Bureau of Inspection, Department of Labor and Industry, or your Divisional Supervisor of the Bureau.

The Pearson and Ludascher Lumber Company, of Philadelphia, employing 66 men at the present time, had 2 lost-time accidents up to June 5th this year. This is a reduction of about 40 per cent as compared with 1927. This plant has a safety organization headed by Thomas Prosser, the superintendent.

The Pennsylvania Brick and Tile Company, of Philadelphia, manufacturers of cement blocks and bricks, with 132 employes working in two shifts, had 2 lost-time accidents in the present year up to June 5th. Both were caused by cement blocks falling on the feet of workers engaged in loading. A safety organization was formed on January 1, 1928, and a considerable reduction in accidents this year as compared with the corresponding period in 1927 has already been achieved.

Holmes Silk Company, Williamsport: In 1926, no lost-time accidents; number of employes, 200; number of working days, 305. In 1927, one lost-time accident; number of employes, 200; number of working days, 300.

The Leeds and Northrup Company, of Philadelphia, makers of electrical instruments, had 3 lost-time accidents totaling 10½ days among 600 employes last year. This concern installs no machine that is not adequately guarded before put into operation.

The National Ticket Company, of Shamokin, with 12 employes, has been working on a basis of 300 work days per year without a lost-time accident since May 13, 1924.

The Hartford Sterling Company, of Lansdowne, with 42 employes, has had no lost-time accidents in 7 years. Careless workers have no place in this organization.

The New York Central Railroad shops at Avis, which had 33 accidents, working 589,621 man-hours in the first 5 months of 1927, had 4 accidents working 422,220 man-hours in the same period of this year. The 1927 records showed one accident per 17,867⅓ man-hours; the 1928 record, one accident to 105,555 man-hours of employment.

The H. M. Fredericks Company, of Lock Haven, engaged in armature winding, had no lost-time accidents among its 68 employes in this year up to July 14th.

The Charleroi Lumber Company, of Charleroi, had 3 lost-time accidents in 1927 among 35 employes working 62,000 hours.

The Charleroi Works of the Pittsburgh Plate Glass Company points with pride to several long periods without lost-time accidents in the last several years. From April, 1924, to May, 1925, the plant operated 13 months without accidents, this record being interrupted by an employe's loss of a thumb in a car door accident. From May, 1925, to February, 1927, the plant operated 21 months with 592 employes working 1,537,592 man-hours without an accident. A broken collar bone, due to a fall, terminated the period. The plant up to July 3d of this year had gone another 12 months without accident, and was still going. Attention is called to the fact that neither of the accidents mentioned was due to handling glass, both being cases of man-failure.

The Century Knitting Company, Incorporated, of Pottstown, had one lost-time accident among 312 employes in 283 work days in 1927. The one accident was caused by an employe trying to put a belt onto a pulley while power was on. Thus far in 1928 this plant has had one lost-time accident.

The American Steel and Wire Company Plant, of Allentown, completed the first 6 minths of 1928 without a single lost-time accident among 2,673 employes. Taking into account increased number of employes, this is a better record to date for 1928 than for any one of the previous three years. The concern has a safety organization composed of a safety chief, assisted by a shop committee.

The Philadelphia Suburban Water Works, Crum Creek Station, reports one lost-time accident among 19 employes working 365 days in 1927. Up until June 27th, when this report was made, there were no lost-time accidents for 1928. Safety is in charge of a Type 5 organization.

The Erie works of the General Electric Company reports that one of its divisions, including shops all of which present more than average hazards, went through 98 working days up to June 17, 1928, without a lost-time accident. During this period the division had an average of 961 employes working 750,000 hours.

MEDICAL SERVICE SUPPLIED BY SCHOOL DISTRICTS FOR THE CERTIFICATION OF EMPLOYED MINORS

By J. Y. Shambach, *Director*

Child Helping and Accounting Bureau, Department of Public Instruction

Section 8 of the Pennsylvania Child Labor Act of May 13, 1915, specifies that an employment certificate shall be required before a minor between the ages of 14 and 16 years may engage in industrial employment. This requirement applies to vacation employment as well as to employment during the time that the public schools of a district are in session. Section 12 of this act provides that, among other records, a certificate of physical fitness shall be required before an employment certificate may be issued.

Section 14 indicates that before a certificate of physical fitness may be "received, examined, approved and filed" by the public school official authorized to issue an employment certificate it shall be prepared and signed by a physician approved by the board of school directors of the school district in which the interested minor resides, and shall state that the minor "has been thoroughly examined by the said physician at the time of the application for an employment certificate, and is physically qualified for the employment specified in the statement of the prospective employer."

The law requires that blanks for the issuance of employment certificates shall be supplied to the various authorized public school officials by the State Superintendent of Public Instruction, and charges the Department of Labor and Industry, public school officials, and local police officers with the duty of seeing that legal requirements are met in the employment of minors.

During the school year 1926-1927 the Department of Labor and Industry and the Department of Public Instruction coöperated in making a study of employed minors between the ages of 14 and 16 years. Questionnaires were sent to each continuation school in the state with the request that answers to the questions be submitted by each minor who had been employed and who was attending such a school. The tabulations of the replies to these questions and conclusions were published in Special Bulletin Number 21, Department of Labor and Industry, entitled "Fourteen and Fifteen Year Old Children in Industry."

During the past summer a letter of inquiry was sent to the authorized public school official in each district where child employment figures had served as a basis for the study "Fourteen and Fifteen Year Old Children in Industry." Each letter contained the following questions:

1. Are certificates of physical fitness issued by a school physician to applicants for employment certificates in your district?

2. Are these certificates of physical fitness issued by physicians not employed by your school district?

3. Is there a charge for the physical examination or for the certificate of physical fitness?

4. If so, what is the charge for the examination or the certificate?

Each of the specified districts sent replies to these questions. In 1926-1927 there were 110 school districts that had continuation schools. The consolidation of two districts reduces to 109 the number of districts having such schools. In dealing with the replies in this article numbers have been used instead of the names of the districts. The detailed tabulations, a summary of the tabulations, and some data regarding the number of continuation school pupils follow.

It will be seen that in a number of districts school physicians examine some of the minors for whom employment certificates are requested, while family physicians examine others in the same districts. Some officials explained this situation by saying that it was optional with applicant or that certificates were issued by physicians not employed by the school district, "during summer vacation" or "if child applies to them" or "occasionally when school physician is not available" or "in the absence of school physician."

Tabulation of Replies Sent in Response to Questionnaire Regarding Statements of Physical Fitness Required When Application Is Made for Employment Certificates for Minors 14 to 16 Years of Age

Numbers Assigned to Districts in Which Continuation Schools Were Located, 1926-27	*Statement Issued By*		
	School Physician	*Physician Not Employed By School District*	*Charges for Physical Examination*
1	Yes	.....	.....
2	.....	Yes	50c to $1.00
3	Yes	Yes	.....
4	Yes	Some	0 to $1.00
5	Yes	.....	.....
6	Yes	Yes	$1.00
7	.....	Yes	50c to $1.00
8	.....	Yes	Usually $1.00
9	Yes	.....	.....
10	Seldom	Usually	0 to 50c
11	Yes	Sometimes	.....
12	Yes	Sometimes	.....
13	.....	Yes	50c
14	Yes	Yes	50c
15	Yes	.....	.....
16	Yes	Sometimes	$1.00
17	.....	Yes	$1.00
18	.....	Yes	$1.00
19	Yes	.....	.....
20	Yes	.....	$1.00
21	.....	Yes	.....
22	.....	Yes	Usually $1.00
23	Yes	Sometimes	Usually 50c
24	Yes	.....	.....
25	Yes	.....	.....
26	.....	Yes	$1.00
27	Yes	.....	$1.00
28	Yes	Yes	$1.00 to $2.00
29	Yes	.....	.....
30	Yes	Sometimes	Usually $1.00
31	.....	Yes	75c
32	.....	Yes	$1.00
33	.....	Yes	50c to $1.00
34	Yes	Yes	$1.00
35	Yes	.....	.....
36	.....	Yes	.....
37	Yes	Yes	.....
38	Yes	.....	.....
39	Yes	Yes	Usually $1.50
40	.....	Yes	Usually 50c
41	.....	Yes	0 to 50c
42	Very few	Yes	50c to $1.00
43	Yes	Yes	50c to $1.00
44	Yes	Yes	50c
45	Yes	Yes	Regular office fee
46	Yes	Yes	$1.00
47	Some	Some	50c to $1.00
48	Some	Yes	Usually $1.00
49	Some	Some	50c
50	.....	Yes	50c
51	Yes	.....	.....

Numbers Assigned to Districts in Which Continuation Schools Were Located, 1926-27	*Statement Issued By*		
	School Physician	*Physician Not Employed By School District*	*Charges for Physical Examination*
52	.....	Yes	$1.00
53	Yes	.....	.....
54	.....	Yes	$1.00
55	Sometimes	Mostly	50c
56	Some	Yes	$1.00 to $2.00
57	Yes	Some	$1.00
58	Yes	.....	.....
59	.....	Yes	Varies
60	Some	Yes	Varies
61	.....	Yes	$1.00
62	Yes	.....	.....
63	Yes	.....	50c
64	.....	Yes	.....
65	Yes	Yes	50c
66	Yes	Yes	50c to $1.50
67	Yes	Yes	$1.00
68	Yes	Some	$1.00
69	Yes	.....	.....
70	Yes	Yes	Usually $1.00
71	.....	Yes	.....
72	Yes	.....	.....
73	Yes	Yes	50c
74	.....	Yes	.....
75	Yes	.....	.....
76	.....	Yes	.....
77	Yes	Yes	$1.00
78	Yes	Yes	$1.00
79	Yes	Yes	$1.00
80	Yes	Yes	$1.00 to $2.00
81	.....	Yes	$1.00
82	Some	Yes	50c to $1.00
83	.....	Yes	.....
84	.....	Yes	$1.00
85	Yes	Yes	$1.00
86	Yes	Yes	50c to $2.00
87	.....	Yes	0 to regular office charges
88	Yes	.....	.....
89	Some	Yes	0 to 50c
90	Yes	.....	$1.00
91	.....	Yes	0 to 25c
92	Yes	.....	.....
93	Yes	.....	.....
94	Yes	.....	.....
95	Yes	Some	0 to $1.00
96	.....	Yes	.....
97	Yes	Yes	.....
98	.....	Yes	$1.00
99	Yes	Some	50c to $1.00
100	.....	Yes	50c
101	Some	Yes	About $1.00
102	.....	Yes	.....
103	Yes	Yes	$1.00 to $2.00
104	.....	Yes	Usually $2.00
105	Yes	Yes	0 to 50c
106	.....	Yes	Varies
107	.....	Yes	$1.00
108	Yes	Yes	$1.00
109	.....	Yes	$1.00 for first, 50c each for additional certificate issued

Summary

Districts having continuation schools in 1926-27 in which these minors are examined by:

	Number	Per Cent
School physicians only	25	23
Other physicians only	37	34
Either school physicians or other physicians	47	43
Total	109	100

	Number	Per Cent
Number of districts in which there is no charge for the examination	35	32
Number of districts in which charge is not specified	5	4
Number of districts in which the charge is:		
0 to 25c	1	1
0 to 50c	4	4
50c	12	11
75c	1	1
0 to $1.00	3	3
50c to $1.00	8	7
$1.00	31	28
50c to $1.50	1	1
$1.50	1	1
50c to $2.00	1	1
$1.00 to $1.50	1	1
$1.00 to $2.00	4	4
$2.00	1	1
Total	109	100

There are 25, or 23 per cent, of the districts under consideration which accept only a school physician's certificate when an employment certificate is requested. Thirty-seven districts require a certificate from a physician not employed by the school district; 47, or 43 per cent, of the districts accept a certificate of physical fitness from either a school physician or another physician.

In 35, or 32 per cent, of the districts under consideration there is no charge to the minor for the examination. All but four of the districts where only a school physician's certificate is accepted give free examinations. In 31 of the districts the charge is $1.00; in five the charge is not specified, and in the remaining 38 the charge ranges from nothing to $2.00.

The number of children affected by the different types of medical examinations varies greatly by districts. The following is the number of children coming under each type of service.*

Pupils in continuation schools during 1926-27 in districts in which minors are examined by:

	Number	Per Cent
School physicians only	14,210	57
Other physicians only	3,106	12
Either school physicians or other physicians	7,721	31
Total	25,037	100

*School population figures wherever used are taken from "Fourteen and Fifteen Year Old Children in Industry," Special Bulletin Number 21, Department of Labor and Industry.

It is seen that 14,210, or 57 per cent, of the minors attending continuation school are employed in districts in which the school physician examines all minors who apply for employment certificates. Twelve per cent of these minors are employed in districts in which physicians not employed by the school district examine the children and 31 per cent are employed in districts in which either the school physician or some other physician may examine them.

Special Bulletin Number 21, Department of Labor and Industry, showed that in 36, or 33 per cent, of the districts under consideration the proportion of employed minors between the ages of 14 and 16 years equals or exceeds 30 per cent of the number of minors between these ages enumerated in the districts. It should be remembered, of course, that some of the minors employed in these districts reside in neighboring districts.

Districts in which fourteen and fifteen year old minors employed in 1926-27 exceeded 30 per cent of those enumerated, in which minors are examined by:

	Number of Districts	*Per Cent of Districts*	*Number of Employed Minors*	*Per Cent of Employed Minors*
School physicians only	5	14	1,578	27
Other physicians only	17	47	1,113	19
Either school physician or other physicians	14	39	3,081	54
Total	36	100	5,772	100

Five, or only 14 per cent, of the 36 districts in which the proportion of employed minors equals or exceeds 30 per cent of the number enumerated require a certificate of physical fitness from the school physician before an employment certificate may be issued. Nearly half of these districts accept a certificate of physical fitness from a physician who is not employed by the school district and more than a third accept a certificate either from the school physician or from some other physician. In these 36 districts there are 5,772 employed minors 14 and 15 years of age. Of these minors 1,578 are employed in districts that require a certificate from a school physician, 1,113 are employed in districts that accept a certificate from a physician not employed by the school district and the remaining 3,081, or more than half, are employed in districts that accept a certificate either from a school physician or from some other physician.

East of the north branch and the main stream of the Susquehanna River we find approximately 26 per cent of the area of Pennsylvania, about 50 per cent of the total population, and approximately 46 per cent of the pupils enrolled in the public schools of the state. In this same area, because of industrial and other conditions, we find 21,313

of the 25,037 pupils enrolled in continuation schools, and we find 86 of the 109 continuation schools. Twenty of the districts east of the Susquehanna River require a school physician's certificate before an employment certificate is issued, 31 accept a certificate from a physician not employed by the school district and 35 accept a certificate issued either by a school physician or another physician. Of the 23 districts west of the Susquehanna River in which there are continuation schools, five require a school physician's certificate, six accept a certificate from a physician not employed by the school district and 12 accept a certificate either from a school physician or from another physician.

Geographical distribution of districts in which minors are examined by:

	East of Susquehanna River		West of Susquehanna River		North of Latitude 40° 30′		South of Latitude 40° 30′	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
School physicians only	20	23	5	22	17	24	8	22
Other physicians only	31	36	6	26	23	32	15	40
Either school physician or other physicians	35	41	12	52	32	44	14	38
Total	86	100	23	100	72	100	37	100

If a line is drawn across a map of Pennsylvania 40 degrees 30 seconds north of the equator, it passes a short distance south of Allentown, a short distance south of Altoona and a short distance north of Pittsburgh. There are 72 districts north of this line and 37 districts south of it having continuation schools. Nearly one fourth, or 17, of the districts north of this line require a certificate of physical fitness from a school physician, 23 accept a certificate from a physician not employed by the school district and 32 accept a certificate either from the school physician or from some other physician. Eight districts, or 22 per cent, of those having continuation schools south of the indicated line require a certificate from a school physician, 15 accept a certificate either from a school physician or from some other physician and 14 accept certificates from physicians who are not employed by the school district.

DEPARTMENTAL NOTES

A film portraying safety in the quarry industry has been prepared under the direction of Thomas J. Quigley, Chief of the Mines and Quarries Section of the Bureau of Inspection. This film will be available for the use of anybody interested after the first of the year.

At a meeting of the International Association of Industrial Accident Boards and Commissions held at Paterson, New Jersey, September 11th-14th, W. H. Horner, Director, Bureau of Workmen's Compensation, was elected a member of the executive committee of the association.

Spencer B. Howell, Explosives Engineer for the U. S. Bureau of Mines, Pittsburgh, Pa., was a recent visitor at the Department. Mr. Howell spent several days going over records in the Bureau of Workmen's Compensation and in the Bureau of Statistics in search of detailed information relative to causes of explosives accidents in coal mines.

Charlotte E. Carr, Director of the Bureau of Women and Children, has been appointed Chairman of the Committee on Industrial Relations of the Welfare Department of the State Federation of Pennsylvania Women. Miss Carr has also been reappointed as industrial advisor for the Pennsylvania League of Women Voters.

INDUSTRIAL BOARD

Recent Rules and Interpretations Approved by the Industrial Board

The following rules and regulations were recently approved by the Industrial Board.

Rules

1. New Rule to be added to Boiler Regulations:

"Where authority has been obtained from the Industrial Board it will be permissible to construct working models or replicas of boilers of historical value. Such boilers shall not be used at any time to generate steam for use in manufacturing or heating but only for use in connection with educational or historical exhibitions. The letters 'Penna. Std. Special' shall be stamped thereon."

2. Rule 248 (e) (EI) of Elevator Regulations amended to read as follows:

"Where no car safeties are provided, they shall be installed in accordance with the requirements for new installations *except that this requirement does not apply to four point suspension type elevators where impracticable to install.* Existing car safeties may remain in their present position, if they meet the requirement of paragraph (f) (EI) of this rule.

3. Amendment to Rule 225 (b) of Elevator Regulations:

"Where collapsible car gates on automatic or double button control passenger elevators are operated by power, curtains or other approved devices shall be provided. Where curtains are used they shall be at least four feet in height and extend from approximately one foot of the car platform to five feet from the car platform.

Interpretations

1. Amendment to Rule 267 (b) originally approved October 15, 1926.

"That the belts and pulleys (except flanged pulleys) of knitting, ribbing and looping machines used in the manufacture of hosiery and underwear are exempt from the requirements of Rule 267 (b) of the Textile Regulations where such machines are placed in rows back to back or against walls, *regardless of the type of belt fastener used, or where such machines are in*

other locations and the belts are fastened with approved types of fasteners.''

Note: Italics represent amendments.

Devices Approved

The following devices have been placed before the Industrial Board and approved:

Name of Company	*Device*
Bradford Building Block Company, Inc., Bradford, Pa.	5″ x 8″ x 12″ concrete block for elevator shaftway walls.
Pennsylvania Engineering Laboratories Company, Pittsburgh, Pa.	Types ''A,'' ''B'' and ''L'' emergency lighting systems.
Pennsylvania Engineering Laboratories Company, Pittsburgh, Pa.	Type ''E'' throw-over switch for emergency lighting system.
Security Fire Door Company, St. Louis, Mo.	Types ''DW'' and ''DLW'' locking device for freight elevator doors of vertical sliding type.
Security Fire Door Company, St. Louis, Mo.	Change of design on type ''DL'' locking device previously approved.
Graham & Norton Company, New York City.	Elevator door closer and locking device for sliding doors of elevators of automatic control.
Haughton Elevator & Machine Company, Toledo, Ohio.	Type ''F'' operator for car doors of passenger elevators.

Approval of the following device has been suspended:

Name of Company	*Device*
Lee Electrical Machine Company, Wilkes-Barre, Pa.	Emergency lighting system.

REVIEW OF INDUSTRIAL STATISTICS

PREPARED BY

The Bureau of Statistics

The Labor Market

Employment reports for October, 1928, show considerable improvement in general business conditions. Reports both from State Employment offices and from industrial establishments indicate a continuation of the upward movement in employment which began in June.

While there has been no large net increase in manufacturing employment recorded during the last few months, the summer level of employment has been well sustained throughout the early fall months, except in the highy seasonal industries, and payrolls have been growing noticeably larger. Payrolls in manufacturing industries for October show a 5.0 per cent gain over September. The ratio of applicants for employment to places open as reported from State Employment offices has shown a sharp decline in recent months. This ratio has fallen from the high mark of 325 applicants for every 100 jobs open in January, 1928, to 189 applicants for every 100 jobs open in October, 1928, a 42 per cent drop in nine months. Whereas in January there were more than three applicants for every job there are now less than two. These reports from State Employment offices are fairly representative of general employment conditions in the various industrial centers of Pennsylvania. A comparison of the employment ratios for the various cities where full-time State Employment offices are maintained shows quite definitely the improvement in employment conditions that has occurred in the various localities during the last year. The ratios are as follows:

Employment Office	*Applicants Per 100 Jobs Open*		
	October, 1927	*January, 1928*	*October, 1928*
Allentown	228	447	196
Altoona	172	360	180
Erie	166	248	140
Harrisburg	107	155	114
Johnstown	127	406	142
Philadelphia	206	242	180
Pittsburgh	284	405	299
Reading	...*	...*	378
Scranton	194	467	231
All offices†	204	325	189

*Less than 100 openings—rate not significant.

†Rates for Lancaster, McKeesport, New Castle, Oil City and Williamsport are omitted because the employment offices in those cities are operated on a part-time basis.

The State Employment figures for October, 1928, show that 8,120 persons applied for employment during the month, calls from employers for 4,296 workers were received, and suitable jobs were found for 3,509 persons. The number of applicants for employment was 10.9 per cent less than in October last year, and the number of persons placed in positions was 6.4 per cent greater.

The demand for workers in manufacturing lines and for farm work was good. The transportation industry showed some slight demand for workers, but the employment office figures do not always reflect changes for this industry because of the numbers of transportation workers on railroad call lists. A demand for railroad workers usually does not appear in the State Employment office reports until the names on the call lists have been exhausted.

The demand for workers in the construction industry also was fairly good, although large declines in building work in some sections has lessened the demand for building workers considerably.

Employment in stores and other mercantile establishments has not exhibited quite the same volume as last year. It is expected, however, that the early Christmas shopping trade will create a good demand for this class of help.

The employment of unskilled labor during October was greater than for some months past, and the demand for this class of labor held up fairly well throughout the month.

Employment, Earnings, and Hours Worked in Manufacturing Industries

The most definite sign of improved business was contained in the reports on employment and payrolls received from 803 manufacturing plants for October. These reports representing more than a third of total manufacturing employment in 51 branches of the industry in the state show an 0.2 per cent gain in employment and a 5.0 per cent increase in payrolls in October over September. Total employment in these 803 establishments was 265,561 in October as compared with 265,029 in September, and as compared with 264,763 in October, 1927. A part of the 5 per cent increase in the October payrolls for manufacturing plants is due to the full-time operation of plants during the first half of October as compared with interrupted operation in September on account of the Labor Day holiday. Hours worked as reported by 473 plants show a 4.8 per cent increase over September. However, the 0.3 per cent gain in employment and the 5 per cent gain in payrolls for October 1928, over October last year, are real indications of increased manufacturing activity in Pennsylvania. These

gains of 0.3 per cent in employment and 5 per cent in payrolls may appear to be small increases, but when the 0.3 per cent gain is applied to the total of manufacturing employment in the state it means a gain of 2,500 employes. Likewise when the 5 per cent gain in wage payments is applied to the total manufacturing payroll in the state, it means an increased purchasing power for manufacturing workers of approximately $887,000 weekly.

Gains in employment and payrolls were reported from virtually every industry not directly affected by seasonal contractions in employment and payrolls. Thirty-one of the 51 groups show increased employment over September. The largest gains were made by the textiles and foods and tobacco groups. The textile products industry showed a 2.3 per cent gain in employment over September, and the foods and tobacco group reported a 2.9 per cent increase.

The metal industry showed no net change in employment for the month although there was some slight shifting of employment between the various metal groups. Large payroll gains were reported for the iron and steel forgings, structural iron, stove and furnace, and electrical apparatus groups. The high average of earnings for workers in the stove and furnace industry was the result of much overtime work in the industry during October. Nearly all manufacturers of electrical apparatus reported a large volume of business for October. Production of radio supplies reached a new record and the October employment figure for this industry was more than double that of October last year.

Employment for the transportation equipment industry showed a 2.5 per cent decrease compared with September. Automobile plants showed little change from last month, but employment for the industry is running well above last year's level. Locomotive and car building was slack, although car repair work showed some increase, and earnings of car shop workers were decidedly better than in September.

Seasonally increased business was reported for the cotton goods, carpet and rugs, and knit goods groups. Some overtime and night work was reported for the carpet and rug industry.

In the foods and tobacco group, the confectionery and meat packing industries also showed seasonal gains in employment. Ice cream production dropped sharply with the arrival of cooler weather.

Furniture factories were busy and 15 of the 20 firms reporting in this group showed small gains in employment over September.

In the leather industry, manufacturers of gloves and baggage were the only groups showing increased employment. Shoe factories and leather tanneries showed slightly decreased employment.

In general, the reports on employment and earnings for October indicate very material improvement of business for the manufacturing industries. The gains in payrolls and average weekly earnings are particularly significant because they must mean that mills and factories in most instances are operating on full week schedules. Overtime work was mentioned in many of the reports and if this situation prevails for another month, increased employment should inevitably follow. Manufacturing employment has shown consistent gain during the last six months and is now only approximately 12 per cent below the 1923-1925 average.

Industrial Accidents and Compensation Costs

During the month of October, 1928, reports of 170 fatal and 15,091 non-fatal accidents to workers in Pennsylvania were received at the Bureau of Workmen's Compensation. This is the highest total of accidents that has been reported to the Department during any month since October, 1926, when 170 fatal and 16,389 non-fatal accidents were reported.

The accident totals for October compared with those for September show an increase of 22 fatal and 2,344 non-fatal accidents over the totals for the preceding month, or gains of 14.9 per cent and 18.4 per cent respectively. Compared with the same month last year, the accident totals for October, 1928, are 5.6 per cent higher in fatal accidents and 11.3 per cent higher in non-fatal accidents. October usually is the month of highest accident totals in a year, and during the last 12 years the accident total for the month of October has averaged 16,000, so that the accident total for October, 1928, is not as high as the past average although it is a definite interruption of the persisently downward trend of accidents shown for the preceding months of 1928. However, even with this increase in accidents for October, the total of accidents for 10 months of 1928 still shows more than a 5 per cent decrease when compared with the record for the first 10 months in 1927. The accident figures for both years are as follows:

	Fatal Accidents	*Non-fatal Accidents*
10 months, 1927	1,711	133,984
10 months, 1928	1,777	126,660
Increase or decrease in 1928	+66 (3.9%)	—7,324 (5.5%)

The general industrial group, embracing the manufacturing and commercial industries, shows a 5.3 per cent reduction in fatal accidents and a 3.2 per cent decrease in non-fatal accidents for the first 10 months in 1928. The coal mining industries, due to the mine disaster in May, 1928, show a 5.4 per cent increase in fatal accidents but have

had a 5.0 per cent decrease in non-fatal accidents. The transportation and public utility group established the best record of accident reduction for the year. Fatal accidents for this group for the first 10 months in 1928 are 18.8 per cent less than for the same period last year and non-fatal accidents are 24.8 per cent less. The accident figures for these three groups are as follows:

Industry Group	*Ten Months 1928*	*Ten Months 1928*	*Increase or Decrease in 1928*
Industrial:			
Fatal accidents	699	738	— 39
Non-fatal accidents	78,610	81,168	—2,558
Coal mining:			
Fatal accidents	901	755	+ 146
Non-fatal accidents	40,038	42,155	—2,117
Transportation and public utilities:			
Fatal accidents	177	218	— 41
Non-fatal accidents	8,012	10,661	—2,649

Pennsylvania's 5.5 per cent reduction in accidents for the first 10 months in 1928 apparently compares favorably with the records in two of its neighboring industrial states. New York for 9 months in 1928 has had a 2.6 per cent reduction in accidents, and Ohio has had an 0.9 per cent increase in accidents for the first 9 months in this year.

The intensive safety campaign planned by the Bureau of Inspection to be carried on throughout the year 1929, embracing a new system of factory inspection, should operate to effect a much greater reduction in accidents in 1929 than has been accomplished thus far in 1928, at least, as far as accidents in manufacturing and commercial industries are concerned. The Department of Labor and Industry has no jurisdiction in the prevention of accidents occurring in the agricultural, coal mining, and transportation industries. Next year inspectors of the Department for the first time will have information indicating the individual establishments within their respective districts which are having bad accident records.

In accounting for the accident increase for October, the only plausible explanation of the increase is that it is the result of increased activity in industry during the month. Reports on employment for October show that industrial activity in manufacturing plants expanded nearly six per cent with proportionate gains in transportation and mining activity. While these gains in industrial activity are not nearly so large as the increase in accidents, they do in some measure account for the large accident increase.

The increase in fatal accidents during October occurred principally in the coal mining industries. Anthracite mines reported 49 fatalities, an increase of 12 over September, and bituminous mines reported 35 fatalities, or 11 more than in September. The fatalities reported from these two industries represent 50 per cent of the total of 170 fatalities reported from all industries during the month. Twenty fatalities were reported from the construction industry, or 5 less than last month. Manufacturing industries reported 28 accidental deaths, the same as in September. The transportation industry reported 14 fatalities, 10 of which occurred on steam railroads. The totals for other industries were: public utilities 3, quarries 1, trade 2, state and municipal 6, and miscellaneous 12. Five of the 12 fatal accidents classified in the miscellaneous industry group occurred to employes of drayage and hauling concerns.

Agreements for the payment of compensation were approved during October in 7,443 cases as follows:

151 fatal cases	$389,655
258 permanent disability cases	265,610
7,034 temporary disability cases	460,526
Total	$1,115,791

The agreements approved during October bring the total of approved agreements during the first 10 months of 1928 to 67,029 involving the award and payment of $12,886,457 in compensation. This is 4,412 more cases and $1,754,480 more compensation than were involved in the agreements approved and awards made during the first 10 months of 1927, or gains of 7.0 per cent and 15.8 per cent respectively.

It is interesting to note in this connection that 6,663 cases were brought into the compensable group during the first 10 months of 1928 by the provision of the law which reduced the non-compensable waiting period from 10 to 7 days. Compensation payments in these 6,663 cases aggregated $34,137, or an average of slightly more than $5.00 per case.

Receipts filed with the Bureau of Workmen's Compensation during October showed that $1,132,300 was paid by insurance carriers to injured persons or their dependents during the month.

A slight decline in the severity of accidental injuries for October cases was noted. The time loss for the 7,034 temporary disability cases compensated during October averaged 41 days as compared with 42 days for the September cases and as compared with 45 days for all temporary disabilities compensated during the first 10 months in 1928. The average time loss on temporary disability cases compensated during the first 10 months in 1927 was 44 days.

REPORT OF ACTIVITIES OF STATE EMPLOYMENT OFFICES FOR THE MONTH OF OCTOBER, 1928

INDUSTRIES	Persons Applying for Positions			Persons Asked for by Employers			Persons Sent to Positions			Persons Receiving Positions		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
GRAND TOTAL	8,120	5,290	2,830	4,296	3,164	1,132	4,857	3,597	1,260	3,509	2,663	846
Total: Industrial Group (skilled)	3,102	2,156	946	1,217	1,019	198	1,540	1,244	296	921	785	136
Building and construction	338	338	.....	198	198	.....	223	223	.....	136	136	.....
Shipbuilding	125	125	.....	74	74	.....	92	92	.....	65	65	.....
Chemicals and allied products	17	17	.....	3	3	.....	3	3	.....	3	3	.....
Clay, glass and stone products	5	5	.....	2	2	.....	2	2	.....	2	2	.....
Clothing	18	9	9	3	3	.....	3	3	.....	3	3	.....
Textiles	84	43	41	8	4	4	20	9	11	6	4	2
Food and kindred products	33	29	4	16	6	10	14	5	9	7	4	3
Leather, rubber and composition	7	7	.....	3	3	.....	.....	.....	.....	.....	.....	.....
Lumber, woodwork and furniture	17	17	.....	22	22	.....	6	6	.....	2	2	.....
Paper and printing	11	6	5	1	.....	1	1	.....	1	1	.....	1
Metals and metal products	591	580	11	350	339	11	430	418	12	262	258	4
Mines and quarries	9	9	.....	4	4	.....	5	5	.....	4	4	.....
Transportation and public utilities	241	166	75	47	33	14	60	44	16	38	27	11
Hotel and restaurant	329	102	227	99	43	56	120	50	70	74	38	36
Wholesale and retail trade	148	68	80	49	20	29	52	32	20	31	13	18
Miscellaneous	1,129	635	494	338	265	73	509	352	157	287	226	61
Total: Other groups	5,018	3,134	1,884	3.079	2,145	934	3,317	2,353	964	2,588	1,878	710
Professional and technical	358	204	154	87	51	36	176	117	59	38	23	15
Agriculture	59	40	19	42	23	19	46	27	19	37	18	19
Semi-skilled	1,263	532	731	672	226	446	737	279	458	436	181	255
Unskilled	2,256	2,090	166	1,589	1,558	31	1,666	1,637	29	1,399	1,376	23
Casual and day workers*	1,082	268	814	689	287	402	692	293	399	678	280	398
September, 1928	10,538	6,616	3,922	5,699	3,997	1,702	6,188	4,386	1,802	4,355	3,188	1,167
August, 1928	7,953	5,254	2,699	3,954	2,911	1,043	4,430	3,194	1,236	2,958	2,262	696
July, 1928	8,243	5,646	2,597	4,010	3,095	915	4,443	3,367	1,076	3,069	2,393	676
October, 1927	9,118	6,018	3,100	4,475	2,792	1,683	4,488	2,909	1,579	3,297	2,260	1,037
October, 1926	11,887	8,059	3,828	10,530	7,474	3,056	8,656	6,270	2,386	7,383	5,484	1,899
October, 1925	10,926	8,465	2,461	7,550	6,002	1,548	7,803	6,315	1,488	6,796	5,505	1,291

*The placement of each casual or day worker is recorded for only one (1) placement per week.

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended Oct. 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: Oct. 1928	EMPLOYMENT: Per cent change compared with: Sept. 1928	EMPLOYMENT: Per cent change compared with: Oct. 1927	PAYROLLS: Total weekly payroll week ended Oct. 15, 1928	PAYROLLS: Index numbers 1923-1925=100: Oct. 1928	PAYROLLS: Per cent change compared with: Sept. 1928	PAYROLLS: Per cent change compared with: Oct. 1927	AVERAGE WEEKLY EARNINGS— week ended: Oct. 15, 1928	AVERAGE WEEKLY EARNINGS— week ended: Sept. 15, 1928
ALL INDUSTRIES (51)	803	265,561	89.5	+ 0.2	+ 0.3	$7,098,795	95.2	+ 5.0	+ 5.0	$26.73	$25.51
Metal products:	235	109,172	88.9	0.0	+ 6.7	3,190,593	97.4	+ 7.2	+ 18.6	29.23	27.28
Blast furnaces	9	1,779	40.7	— 0.5	— 28.1	52,386	43.3	+ 0.2	— 24.8	29.45	29.17
Steel works and rolling mills	44	53,205	77.0	— 0.4	— 4.1	1,605,162	85.5	+ 8.6	+ 9.9	30.17	27.67
Iron and steel forgings	10	1,915	89.0	+ 4.5	+ 19.8	53,130	101.9	+ 9.7	+ 31.8	27.74	26.42
Structural iron work	10	4,604	109.1	+ 1.5	+ 13.9	135,445	116.3	+11.4	+ 16.5	29.42	26.80
Steam and hot water heating appliances	17	4,463	93.2	— 1.4	+ 6.5	135,420	104.1	+ 3.8	+ 19.8	30.34	28.35
Stoves and furnaces	9	1,010	84.9	+11.3	— 7.4	32,891	96.8	+25.2	— 1.9	32.57	28.96
Foundries	38	7,430	84.8	— 3.7	+ 1.3	215,343	91.1	+ 3.6	+ 11.4	28.98	26.81
Machinery and parts	40	9,520	103.6	+ 0.5	+ 10.6	298,629	114.3	+ 2.6	+ 14.6	31.37	30.74
Electrical apparatus	17	14,105	209.3	+ 1.0	+112.1	368,051	240.5	+ 7.2	+107.1	26.09	24.58
Engines and pumps	10	3,609	97.7	+ 1.5	+ 9.0	108,531	108.9	+ 9.1	+ 19.8	30.07	27.96
Hardware and tools	20	6,326	81.5	— 0.4	— 3.8	156,402	87.2	+ 2.8	+ 3.9	24.72	23.99
Brass and bronze products	11	1,206	110.1	+ 5.3	+ 28.3	29,203	100.6	— 0.2	+ 19.5	24.21	25.57
Transportation equipment:	40	27,301	66.1	— 2.5	— 17.3	779,503	64.9	— 2.0	— 19.5	28.55	28.40
Automobiles	6	4,580	89.9	0.0	+ 32.0	135,596	92.2	+ 2.3	+ 39.3	29.61	28.90
Automobile bodies and parts	11	7,048	84.0	— 5.5	+ 22.3	228,458	84.1	— 0.4	+ 47.5	32.41	30.73
Locomotives and cars	13	11,147	54.4	— 4.1	— 26.8	287,726	48.6	— 8.8	— 30.7	25.81	27.17
Railroad repair shops	6	3,262	80.9	+ 4.4	— 1.8	92,510	86.6	+15.3	— 0.3	28.36	25.67
Shipbuilding	4	1,264	24.1	+ 4.8	— 48.2	35,213	23.1	— 5.7	— 47.4	27.86	31.02
Textile products:	163	53,821	96.7	+ 2.3	— 2.7	1,229,342	107.0	+ 7.2	— 3.4	22.84	21.79
Cotton goods	14	3,481	79.6	+ 4.5	— 15.5	84,048	82.8	+12.0	— 12.2	24.14	22.53
Woolens and worsteds	15	6,023	88.6	+ 4.1	— 10.9	132,658	91.7	+ 8.4	— 14.9	22.03	21.14
Silk goods	39	17,019	100.6	+ 2.3	+ 2.4	333,405	107.6	+ 6.6	+ 3.6	19.59	18.79
Textile dyeing and finishing	9	1,866	117.0	+ 3.4	0.0	50,649	133.2	+ 6.3	+ 6.9	27.14	26.43
Carpets and rugs	10	2,670	83.7	+ 5.7	— 6.1	69,496	86.3	+18.5	— 9.3	26.03	23.21
Hats	4	3,826	96.2	— 0.4	+ 0.1	91,907	90.7	— 6.7	— 10.6	24.02	25.64
Hosiery	27	11,086	109.3	+ 0.6	— 4.3	325,308	143.3	+ 7.4	— 2.4	29.34	27.49
Knit goods, other	15	3,264	92.3	+ 7.7	+ 13.0	65,502	104.7	+23.9	+ 19.8	20.07	17.42
Men's clothing	10	987	85.4	— 9.7	— 20.6	19,051	83.3	—11.9	— 24.1	19.30	19.78
Women's clothing	9	1,126	106.3	— 3.8	+ 6.3	16,975	112.0	— 3.2	+ 7.7	15.08	14.96
Shirts and furnishings	11	2,473	95.4	+ 3.4	+ 3.2	40,343	96.5	+ 8.2	— 6.4	16.31	15.55

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	EMPLOYMENT: No. of wage earners week ended Oct. 15, 1928	EMPLOYMENT: Index numbers 1923-1925=100: Oct. 1928	EMPLOYMENT: Per cent change compared with: Sept. 1928	EMPLOYMENT: Per cent change compared with: Oct. 1927	PAYROLLS: Total weekly payroll week ended Oct. 15, 1928	PAYROLLS: Index numbers 1923-1925=100: Oct. 1928	PAYROLLS: Per cent change compared with: Sept. 1928	PAYROLLS: Per cent change compared with: Oct. 1927	AVERAGE WEEKLY EARNINGS—week ended: Sept. 15, 1928	AVERAGE WEEKLY EARNINGS—week ended: Oct. 15, 1928
Foods and tobacco:	102	23,970	102.1	+ 2.9	+ 1.6	$497,759	104.1	+ 4.1	+ 2.5	$20.77	$20.52
Bread and bakery products	30	4,354	105.3	+ 1.0	— 3.7	125,483	100.8	+ 1.5	— 4.5	28.82	28.66
Confectionery	14	4,858	105.3	+ 8.3	+ 0.7	98,166	120.0	+18.7	+ 3.8	20.21	18.43
Ice cream	11	1,256	84.5	—11.7	— 1.7	41,302	93.9	— 8.3	+ 3.2	32.88	31.67
Meat packing	14	2,152	99.1	+ 4.1	+ 2.0	63,940	100.4	+ 3.6	+ 3.4	29.71	29.84
Cigars and tobacco	33	11,350	103.6	+ 3.1	+ 0.6	168,868	104.4	+ 2.4	— 0.9	14.88	14.99
Stone, clay and glass products:	66	15,620	[illegible]	— 1.7	—12.2	447,130	86.4	+ 5.6	— 8.9	28.63	26.66
Brick, tile and pottery	30	4,633	[illegible]	— 2.1	— 7.5	117,797	90.4	+ 3.6	— 1.5	25.43	24.01
Cement	14	[illegible]	76.3	— 2.8	—23.5	182,195	87.4	+ 2.8	—19.2	33.29	31.52
Glass	22	[illegible]	90.4	— 0.1	— 0.9	147,138	89.9	+11.1	+ 1.8	26.68	23.98
Lumber products:	43	[illegible],110	84.6	0.0	— 5.1	118,088	91.6	+ 3.5	— 2.4	23.11	22.36
Lumber and planing mills	[illegible]	2,211	73.4	— 7.3	— 4.4	48,945	79.1	— 2.1	— 3.4	22.14	20.96
Furniture	[illegible]	2,185	92.4	+ 8.7	— 2.8	56,831	101.4	+10.2	+ 2.1	26.01	25.64
Wooden boxes	6	714	111.9	+ 1.3	—13.9	12,312	119.7	— 1.6	—16.5	17.24	17.73
Chemical products:	48	11,177	98.0	+ 0.1	+ 4.1	324,373	106.3	+ 2.4	+ 2.3	29.02	28.39
Chemicals and drugs	28	1,447	93.9	— 0.2	+ 7.3	39,345	95.7	+ 2.4	+ 5.0	27.19	26.50
Coke	3	2,753	118.9	+ 0.8	+ 7.9	80,478	123.2	+ 2.8	+ 7.3	29.23	28.72
Explosives	3	577	133.3	+10.8	+ 8.8	14,567	121.8	+ 7.9	+ 0.6	25.25	25.93
Paints and varnishes	9	1.034	127.8	+ 3.9	— 6.9	28,639	137.0	+12.9	— 5.6	27.70	25.47
Petroleum refining	5	5,366	87.4	— 1.9	+ 3.3	161,344	96.5	0.0	+ 1.3	30.07	29.49
Leather and rubber products:	49	11,116	97.4	— 1.4	— 2.2	261,717	103.7	— 1.0	— 2.9	23.54	23.22
Leather tanning	17	5,730	103.6	— 1.0	— 2.6	147,631	108.5	— 1.3	— 3.8	25.76	25.85
Shoes	22	3,801	88.5	— 3.9	— 6.6	72,347	92.5	— 1.3	— 8.1	19.03	18.05
Leather products, other	6	664	124.6	+ 8.3	+38.8	14,827	121.0	+11.0	+42.5	22.33	21.79
Rubber tires and goods	4	921	78.5	+ 0.4	— 7.4	26,912	93.7	— 5.0	—10.6	29.22	30.85
Paper and printing:	57	8,274	94.4	+ 1.0	— 1.9	250,290	108.7	+ 4.9	+ 3.9	30.25	29.11
Paper and wood pulp	13	3,637	83.8	— 0.6	— 4.1	109,813	98.5	+ 6.9	+ 2.6	30.19	28.05
Paper boxes and bags	6	751	101.0	+ 3.1	— 6.0	12,003	124.0	+12.6	— 2.7	15.98	14.63
Printing and publishing	38	3,886	106.7	+ 2.3	+ 1.7	128,474	118.4	+ 2.7	+ 6.1	33.06	32.91
Construction and contracting*	30	5,000	105.1	+ 1.2	— 3.0	137,448	98.3	+ 9.6	— 3.1	27.43	25.77

*Not included in total for all industries.

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA—*(Continued)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		Oct. 15, 1928	Sept. 15, 1928	Per cent change	Oct. 15, 1928	Sept. 15, 1928
ALL INDUSTRIES: (46)	473	7,556,293	7,209,555	+ 4.8	$.571	$.566
Metal products:	170	3,753,504	3,488,660	+ 7.6	.603	.601
Blast furnaces	7	80,543	79,534	+ 1.3	.587	.590
Steel works and rolling mills	27	1,887,391	1,744,109	+ 8.2	.628	.624
Iron and steel forgings	8	79,787	71,731	+11.2	.564	.574
Structural iron work	7	104,825	93,063	+12.6	.571	.571
Steam and hot water heating appliances	14	171,354	162,239	+ 5.6	.574	.605
Foundries	31	311,363	281,916	+10.4	.606	.599
Machinery and parts	32	408,718	395,579	+ 3.3	.618	.614
Electrical apparatus	14	283,515	253,311	+11.9	.524	.515
Engines and pumps	10	179,063	167,389	+ 7.0	.606	.594
Hardware and tools	13	212,618	206,557	+ 2.9	.526	.538
Brass and bronze products	7	34,327	33,232	+ 3.3	.547	.544
Transportation and equipment:	30	896,469	903,803	— 0.8	.632	.625
Automobiles	6	207,133	203,252	+ 1.9	.655	.652
Automobile bodies and parts	8	349,991	356,729	— 1.9	.624	.616
Locomotives and cars	8	196,344	208,487	— 5.8	.591	.586
Railroad repair shops	4	90,692	80,599	+12.5	.675	.665
Shipbuilding	4	52,309	54,736	— 4.4	.673	.682
Textile products:	70	1,133,938	1,068,408	+ 6.1	.462	.453
Cotton goods	10	59,163	52,480	+12.7	.474	.465
Woolens and worsteds	9	124,401	112,036	+11.0	.468	.460
Silk goods	20	414,161	392,759	+ 5.4	.421	.42
Textile dyeing and finishing	4	33,100	28,824	+14.8	.490	.48
Carpets and rugs	5	79,036	72,908	+ 8.4	.544	.55
Hosiery	6	284,224	278,036	+ 2.2	.535	.504
Knit goods, other	8	56,826	48,550	+17.0	.418	.389
Women's clothing	4	27,173	28,655	— 5.2	.401	.390
Shirts and furnishings	4	55,854	54,160	+ 3.1	.315	.294

EMPLOYMENT AND EARNINGS IN PENNSYLVANIA—*(Concluded)*

GROUP AND INDUSTRY	No. of Plants Reporting	Total Weekly Employe Hours Week Ended			Average Hourly Earnings Week Ended	
		Oct. 15, 1928	Sept. 15, 1928	Per cent change	Oct. 15, 1928	Sept. 15, 1928
Foods and tobacco:	48	358,796	348,242	+ 3.0	$.486	$.482
Bread and bakery products	20	113,918	113,114	+ 0.7	.512	.512
Confectionery	6	103,310	92,870	+11.2	.418	.404
Ice cream	8	47,233	51,630	— 8.5	.579	.558
Meat packing	9	62,864	60,995	+ 3.1	.556	.551
Cigars and tobacco	5	31,471	29,633	+ 6.2	.334	.342
Stone, clay and glass products:	35	429,753	421,709	+ 1.9	.555	.551
Brick, tile and pottery	15	132,232	135,478	— 2.4	.536	.531
Cement	8	173,384	170,494	+ 1.7	.547	.543
Glass	12	124,137	115,737	+ 7.3	.586	.586
Lumber products:	33	137,576	132,240	+ 4.0	.526	.495
Lumber and planing mills	13	41,947	43,715	— 4.0	.537	.530
Furniture	16	84,823	79,985	+ 6.0	.540	.488
Wooden boxes	4	10,806	8,540	+26.5	.375	.385
Chemical products:	20	295,686	306,386	— 3.5	.602	.575
Chemicals and drugs	12	50,821	51,338	— 1.0	.489	.488
Paints and varnishes	5	44,520	38,430	+15.8	.563	.563
Petroleum refining	3	200,345	216,618	— 7.5	.640	.598
Leather and rubber products:	27	249,133	251,876	— 1.1	.484	.485
Leather tanning	9	110,168	108,337	+ 1.7	.526	.531
Shoes	10	83,638	86,198	— 3.0	.371	.368
Leather products, other	4	8,755	8,466	+ 3.4	.529	.554
Rubber tires and goods	4	46,572	48,875	— 4.7	.578	.579
Paper and printing:	40	301,438	288,231	+ 4.6	.591	.588
Paper and wood pulp	10	188,719	179,539	+ 5.1	.532	.523
Paper boxes and bags	3	9,117	8,282	+10.1	.324	.334
Printing and publishing	27	103,602	100,410	+ 3.2	.724	.727
Construction and contracting*	23	198,954	176,901	+12.5	.594	.603

*Not included in total for all industries.

EMPLOYMENT AND EARNINGS IN THE CITY AREAS IN PENNSYLVANIA

CITY AREAS	No. of Plants Reporting	EMPLOYMENT				PAYROLLS				AVERAGE WEEKLY EARNINGS— week ended	
		No. of wage earners week ended Oct. 15, 1928	Index numbers 1923-1925=100			Total weekly payroll week ended Oct. 15, 1928	Index numbers 1923-1925=100				
			Oct. 1928	Per cent change compared with			Oct. 1928	Per cent change compared with		Oct. 15, 1928	Sept. 15, 1928
				Sept. 1928	Oct. 1927			Sept. 1928	Oct. 1927		
Allentown-Bethlehem-Easton	78	20,829	86.5	+ 0.2	— 6.0	$554,926	83.5	+ 6.1	— 5.6	$26.64	$25.08
Altoona	14	2,244	.....	+ 0.7	.....	50,920	.....	+ 4.2	.....	22.69	21.93
Erie	11	3,938	99.8	+ 0.9	+ 0.9	118,947	100.9	+ 2.0	+ 0.9	30.20	29.86
Harrisburg	34	7,092	97.8	+ 0.9	+ 3.7	166,877	104.3	+ 7.3	+ 9.9	23.53	22.11
Hazleton-Pottsville	21	4,798	102.9	+ 1.8	+ 0.7	100,726	95.2	+ 3.3	— 3.6	20.99	20.70
Johnstown	13	996	104.3	+ 2.9	—12.4	25,492	88.4	— 1.9	0.0	25.59	26.83
Lancaster	29	4,311	98.2	+ 2.1	— 7.2	94,256	91.0	+ 7.7	— 8.0	21.86	20.70
New Castle	11	5,691	104.8	— 2.1	— 3.9	170,815	103.8	+ 1.0	+ 4.0	30.01	29.10
Philadelphia	243	90,685	91.3	0.0	+ 4.6	2,483,796	93.4	+ 0.8	+ 4.7	27.39	27.1
Pittsburgh	91	58,788	89.2	+ 0.6	— 3.0	1,753,773	86.8	+ 9.6	+ 9.7	29.83	27.3
Reading-Lebanon	62	20,834	93.0	+ 1.3	+ 0.9	571,084	97.4	+13.5	+ 8.3	27.41	24.4
Scranton	31	4,920	101.5	+ 2.6	+ 2.4	99,310	120.7	+15.7	+ 6.8	20.18	17.9
Sunbury	26	8,563	67.6	0.0	— 4.8	181,493	70.0	+ 1.0	— 5.5	21.20	20.9
Wilkes-Barre	21	5,633	97.7	+ 0.3	—10.1	108,725	98.9	+ 1.9	—10.3	19.30	19.0
Williamsport	22	5,169	78.3	— 2.1	— 4.5	125,450	78.3	+ 1.0	+ 4.6	24.27	23.5
York	43	6,453	96.6	+ 2.9	— 0.7	131,996	99.5	+ 3.6	+10.4	20.45	20.2

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION

1928	ACCIDENT REPORTS RECEIVED								AGREEMENTS APPROVED			
	Total		Industrial		Coal Mining		Transportation and Public Utilities		Total	Fatal	Permanent Disability	Temporary Disability
	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal	Fatal	Non-Fatal				
July	141	12,291	67	8,111	52	3,346	22	834	7,085	152	227	6,706
August	176	13,633	74	9,092	80	3,757	22	783	6,904	142	300	6,462
September	148	12,747	68	8,217	61	3,692	19	838	6,668	108	252	6,308
October	170	15,091	69	9,394	84	4,761	17	936	7,443	151	258	7,034
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	1,777	126,660	699	78,610	901	40,038	177	8,012	67,029	1,562	2,751	62,716
1927												
July	176	12,548	86	8,219	63	3,328	27	1,001	6,293	198	315	5,780
August	172	13,660	76	8,678	71	3,923	25	1,059	5,872	170	273	5,429
September	160	13,279	63	8,199	73	4,118	24	962	5,966	152	311	5,503
October	161	13,564	75	8,119	75	4,394	11	1,051	5,899	227	293	5,379
November	192	13,087	85	7,935	70	4,230	37	922	5,654	148	207	5,299
December	150	11,619	66	7,091	66	3,699	18	829	6,615	155	342	6,118
Total—1927	2,053	158,690	889	96,194	891	50,084	273	12,412	74,886	2,001	3,479	69,406
*Grand Total	30,632	2,275,616	13,043	1,440,959	12,792	631,832	4,797	202,825	910,106	25,318	26,715	858,073

*Since the inception of the Act—January 1, 1916.

Compiled from Records in the Bureau of Workmen's Compensation

COMPENSATION AWARDED AND PAID

1928	AWARDED				PAID			
	Total Compensation Awarded	Fatal Compensation Awarded	Permanent Disability Compensation Awarded	Temporary Disability Compensation Awarded	Total Compensation Paid	Fatal Compensation Paid	Permanent Disability Compensation Paid	Temporary Disability Compensation Paid
July	$1,184,414	$532,603	$226,248	$425,563	$996,573	$341,208	$229,802	$425,563
August	1,328,342	514,711	363,471	450,160	1,028,538	311,846	266,532	450,160
September	1,166,880	416,783	284,751	465,346	947,726	247,849	234,531	465,346
October	1,115,791	389,655	265,610	460,526	1,132,300	349,460	322,314	460,526
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	$12,886,457	$5,308,994	$2,980,891	$4,596,572	$10,261,836	$2,925,697	$2,739,567	$4,596,572
1927								
July	$1,389,540	$604,010	$294,561	$490,969	$1,204,087	$307,034	$406,084	$490,969
August	1,140,955	484,986	271,678	384,291	1,081,893	256,510	441,092	384,291
September	1,058,988	426,309	287,559	345,120	902,607	278,397	279,090	345,120
October	1,120,444	514,306	238,293	367,845	1,017,146	325,006	324,295	367,845
November	1,005,356	511,597	184,903	308,856	824,175	246,964	268,355	308,856
December	1,214,804	431,969	327,799	455,036	983,473	276,085	252,352	455,036
Total—1927	$13,343,489	$5,772,868	$3,266,464	$4,344,157	$11,697,889	$3,492,763	$3,860,969	$4,344,157
*Grand Total	$147,871,541	$70,735,644	$30,862,529	$46,273,368	$103,799,107	$31,637,978	$25,887,761	$46,273,368

*Since the inception of the Act—January 1, 1916.

**PERMANENT INJURIES

1928	Loss of Legs		Loss of Arms		Loss of Hands		Loss of Feet		Loss of Eyes	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	5	$12,734	1	$2,580	19	$43,574	14	$26,468	30	$50,163
August	14	34,836	11	30,218	21	45,386	15	30,045	58	101,876
September	13	34,216	2	5,101	21	49,222	12	21,774	40	75,053
October	10	25,382	3	8,935	18	41,966	14	26,590	35	61,434
November	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	108	$272,859	59	$157,804	190	$422,670	149	$286,740	443	$732,819
1927										
July	8	$20,056	6	$14,731	26	$51,976	20	$34,814	46	$65,013
August	13	31,089	6	13,768	22	43,184	13	20,310	51	75,731
September	14	33,780	4	10,169	13	26,602	12	22,607	62	93,165
October	10	25,800	5	11,610	17	36,456	13	23,264	43	61,051
November	11	27,211	1	2,572	14	28,563	6	10,742	31	47,65-
December	11	28,380	2	2,440	17	36,215	17	31,594	69	107,84!
Total—1927	128	$319,780	63	$153,843	214	$431,661	159	$282,506	588	$882,42-
*Grand Total	1,357	$3,018,436	954	$2,137,035	3,037	$5,587,869	1,866	$3,114,287	7,491	$10,497,23

*Since the inception of the Act—January 1, 1916. **Multiple losses separated respectively.

**PERMANENT INJURIES—*(Concluded)*

1928	Loss of Fingers		Loss of Phalanges		Facial Disfigurement		Miscellaneous	
	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded	No.	Amt. Awarded
July	96	$38,846	85	$19,030	8	$3,853	6	$29,000
August	110	43,169	96	21,539	15	9,920	9	46,482
September	114	43,892	84	20,391	8	2,811	7	32,291
October	124	51,766	97	21,106	2	510	6	27,921
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
Total—1928	1,137	$449,942	934	$204,435	122	$53,908	87	$399,714
1927								
July	118	$40,259	104	$19,791	21	$9,072	10	$37,849
August	112	36,970	83	15,624	12	5,310	9	29,692
September	125	45,165	115	21,164	15	6,966	7	27,941
October	124	44,892	102	20,028	7	1,958	3	13,234
November	105	35,481	69	12,444	5	3,840	4	16,396
December	165	56,754	121	23,860	14	6,136	8	34,577
Total—1927	1,502	$509,006	1,202	$226,122	119	$55,331	90	$365,795
*Grand Total	7,900	$2,758,977	6,600	$1,264,877	486	$272,736	524	$2,211,082

*Since the inception of the Act—January 1, 1916. **Multiple losses separated respectively.

Note: The above tables present changes in a number of items from similar tables previously published. The changes have been made as information received subsequent to the publication of former tables made such corrections necessary.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING OCTOBER, 1928

Cause	Total of All Industries		Construction and Contracting						Coal Mining				Other		Manufacturing																					
			Building Construction		Other Construction		Contracting		Anthracite		Bituminous		Quarrying and Mining Other Than Coal Mining		Total of Manufacturing Industries		Chemicals and Allied Products		Clay, Glass and Stone Products		Clothing		Food and Kindred Products		Leather, Rubber and Composition Goods		Lumber, Wood and Their Products		Paper and Paper Products and Printing and Publishing		Textiles	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	170	15,091	8	1,065	11	485	1	488	49	2,662	35	2,095	1	264	28	5,149	..	233	3	437	..	182	2	478	..	131	1	356	1	233	..	264
Working machinery and processes	7	1,231	..	26	2	24	..	22	..	35	1	81	..	9	3	906	..	5	1	24	..	70	..	38	..	40	..	102	..	69	..	85
Boilers and pressure apparatus	...	32	..	1	..	1	..	3	..	2	..	1	..	2	..	10	..	3	..	.....	..	.....	..	.....	..	1	..	1	..	.....	..	1
Pumps and prime movers	...	38	..	2	..	9	..	3	..	3	..	.....	..	1	..	8	..	2	..	.....	..	.....	..	3	..	.....	..	.....	..	.....	..	1
Transmission apparatus	...	23	..	1	..	1	..	.....	..	7	..	.....	..	2	..	11	..	.....	..	3	..	.....	..	2	..	1	..	1	..	.....	..	1
Elevators and hoists	2	78	1	5	..	1	..	1	1	7	..	4	..	2	..	36	..	4	..	3	..	1	..	7	..	.....	..	3	..	6	..	3
Cranes and derricks	4	221	..	20	..	13	..	21	1	8	..	7	..	6	3	131	..	6	..	4	..	.....	..	4	..	1	..	.....	..	1	..	2
Cars and engines	30	1,140	..	3	..	8	..	4	5	365	13	436	..	20	3	81	..	6	..	17	..	.....	..	1	..	1	..	3	..	2	..	.....
Motor vehicles	17	624	2	37	2	52	..	27	..	3	..	4	..	8	2	192	..	14	..	5	..	1	2	37	..	4	..	7	..	9	..	4
Other vehicles	2	90	..	4	..	1	..	5	..	1	..	3	..	.....	1	35	..	2	..	3	..	.....	..	16	..	.....	..	11	..	1	..	1
Hand trucks	...	190	..	15	..	4	..	17	..	1	..	1	..	2	..	108	..	2	..	15	..	2	..	8	..	4	..	4	..	5	..	7
Water and air craft	2	4	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	1	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..	.....
Handling objects—by hand	5	3,314	..	250	..	130	..	94	..	543	1	298	..	74	2	1,281	..	60	..	165	..	30	..	142	..	27	..	81	..	43	..	50
Hand tools	1	1,471	..	117	..	44	..	54	..	290	1	257	..	28	..	448	..	21	..	25	..	18	..	43	..	11	..	40	..	14	..	13
Electricity	8	93	..	1	1	1	..	.....	1	19	2	26	..	1	3	29	..	1	1	4	..	1	..	.....	..	1	..	.....	..	.....	..	1
Explosive substances	5	151	..	4	1	6	..	3	2	51	..	15	..	6	1	43	..	8	..	3	..	1	..	2	..	1	..	2	..	2	..	1
Hot and corrosive substances	3	511	..	47	..	26	..	18	..	10	..	11	..	1	3	307	..	23	1	24	..	5	..	30	..	5	..	4	..	6	..	5
Falling objects	57	2,297	1	99	1	38	1	69	37	764	14	668	..	60	2	454	..	21	..	31	..	5	..	27	..	6	1	26	..	26	..	15
Falls of persons	22	1,995	4	255	4	78	..	73	1	256	2	131	1	24	5	579	..	37	..	58	..	22	..	78	..	9	..	38	1	30	..	36
Stepping upon or striking against objects	1	1,021	..	146	..	34	..	61	..	182	..	74	..	10	..	325	..	14	..	39	..	20	..	26	..	10	..	26	..	14	..	25
Miscellaneous	4	567	..	32	..	13	..	13	1	115	1	78	..	8	..	164	..	4	..	14	..	6	..	14	..	9	..	7	..	5	..	13

*F.=Fatal. N. F.=Non-fatal.

ACCIDENTS OCCURRING DURING COURSE OF EMPLOYMENT AS REPORTED TO THE BUREAU OF WORKMEN'S COMPENSATION DURING OCTOBER, 1928—*(Concluded)*

Cause	Manufacturing—(Concluded)																		Transportation and Public Utilities						Other Industries									
	Metals and Metal Products																																	
	Total		Blast Furnaces and Steel Works		Rolling Mills		Foundries and Machine Shops		Fabrication		Car Repair Shops		Automobile Service Stations		Other		Steam Railroads		Other Transportation		Public Utilities		Hotels and Restaurants		Trading: Retail		Trading: Wholesale		State and Municipal		Miscellaneous	
*	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F	F	N F
Total of all causes	20	2,749	5	93	7	604	3	500	5	1,107	..	258	..	187	1	86	10	537	4	179	3	222	..	133	2	583	..	180	6	372	12	677
Working machinery and processes	2	451	..	4	..	75	..	95	2	248	..	25	..	4	..	22	..	1	..	5	1	6	..	8	..	33	..	9	..	11	..	55
Boilers and pressure apparatus	...	3	..	...	..	...	..	1	..	2	..	...	..	...	..	1	..	...	..	...	..	1	..	...	..	...	..	...	..	7	..	4
Pumps and prime movers	...	2	..	...	..	...	..	...	..	...	..	1	..	1	..	...	..	1	..	2	..	3	..	...	..	3	..	...	..	...	..	3
Transmission apparatus	...	3	..	...	..	...	..	...	..	3	..	...	..	...	..	...	..	...	..	...	..	...	..	...	..	...	..	...	..	...	..	1
Elevators and hoists	...	7	..	1	..	...	..	1	..	5	..	...	..	...	..	2	..	1	..	...	..	...	..	3	..	6	..	3	..	1	..	8
Cranes and derricks	3	111	1	8	1	40	..	15	1	37	..	11	..	...	..	2	..	1	..	1	..	4	..	...	..	1	..	2	..	3	..	3
Cars and engines	3	51	1	5	2	11	..	3	..	10	..	22	..	...	..	...	8	189	..	23	..	1	..	...	..	4	..	1	1	2	..	3
Motor vehicles	...	109	..	1	..	8	..	3	..	31	..	2	..	64	..	2	..	5	3	36	..	15	..	3	1	70	..	19	3	85	4	68
Other vehicles	1	1	..	...	..	...	1	1	..	...	..	...	..	...	..	...	..	...	..	...	..	9	..	...	..	12	..	3	..	8	1	9
Hand trucks	...	59	..	4	..	13	..	10	..	25	..	5	..	2	..	2	..	17	..	2	..	5	..	...	..	8	..	...	..	2	..	8
Water and air craft	...	1	..	...	..	1	..	...	..	...	..	...	..	...	..	...	..	1	1	...	..	...	..	...	..	...	..	...	1	...	..	1
Handling objects—by hand	2	660	..	14	1	156	..	139	1	273	..	50	..	28	..	23	..	95	..	43	1	49	..	29	..	150	..	55	..	63	1	160
Hand tools	...	255	..	6	..	44	..	36	..	93	..	33	..	43	..	8	..	38	..	6	..	24	..	16	..	44	..	14	..	33	..	58
Electricity	2	21	..	...	..	3	1	3	1	12	..	2	..	1	..	...	..	2	..	4	1	4	..	...	..	...	..	2	..	...	..	4
Explosive substances	1	22	..	1	..	4	1	2	..	12	..	1	..	2	..	1	..	1	..	1	..	3	..	1	..	2	..	1	..	6	1	8
Hot and corrosive substances	2	205	1	18	1	46	..	64	..	58	..	15	..	4	..	...	..	11	..	4	..	9	..	28	..	9	..	4	..	9	..	17
Falling objects	1	292	..	12	1	83	..	59	..	113	..	16	..	9	..	5	..	21	..	8	..	18	..	4	1	23	..	14	..	15	..	42
Falls of persons	3	255	2	12	1	69	..	26	..	92	..	40	..	16	1	16	2	94	..	30	..	50	..	33	..	143	..	34	..	80	3	135
Stepping upon or striking against objects	...	151	..	3	..	31	..	25	..	60	..	20	..	12	..	...	..	28	..	10	..	15	..	6	..	57	..	9	..	25	1	39
Miscellaneous	...	90	..	4	..	20	..	17	..	33	..	15	..	1	..	2	..	31	..	4	..	6	..	2	..	18	..	10	1	22	1	51

*F.=Fatal. N. F.=Non-fatal.

FIVE-YEAR COMPARATIVE STATEMENT OF ACCIDENTS REPORTED

Month	1924			1925			1926			1927			1928		
	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total	Fatal	Non-Fatal	Total
January	233	15,280	15,513	200	15,339	15,539	150	12,815	12,965	170	14,497	14,667	161	11,975	12,136
February	181	14,812	14,993	171	14,208	14,379	149	11,958	12,107	184	13,101	13,285	146	11,912	12,058
	414	*30,092*	*30,506*	*371*	*29,547*	*29,918*	*299*	*24,773*	*25,072*	*354*	*27,598*	*27,952*	*307*	*23,887*	*29,194*
March	212	15,989	16,201	158	15,517	15,675	185	15,606	15,791	162	14,332	14,494	145	12,539	12,684
	626	*46,081*	*46,707*	*529*	*45,064*	*45,693*	*484*	*40,379*	*40,863*	*516*	*41,930*	*42,446*	*452*	*36,426*	*36,878*
April	151	13,931	14,082	180	14,251	14,431	144	14,249	14,393	169	12,693	12,862	139	10,928	11,067
	777	*60,012*	*60,789*	*709*	*59,315*	*60,024*	*628*	*54,628*	*55,256*	*685*	*54,623*	*55,308*	*591*	*47,354*	*47,945*
May	157	13,940	14,097	170	14,523	14,693	171	14,521	14,692	172	12,869	13,041	360	13,041	13,401
	934	*73,952*	*74,886*	*879*	*73,838*	*74,717*	*799*	*69,149*	*69,948*	*857*	*67,492*	*68,349*	*951*	*60,395*	*61,346*
June	175	14,324	14,499	194	15,656	15,850	163	15,233	15,396	185	13,441	13,626	191	12,503	12,694
	1,109	*88,276*	*89,385*	*1,073*	*89,494*	*90,567*	*962*	*84,382*	*85,344*	*1,042*	*80,933*	*81,975*	*1,142*	*72,898*	*74,040*
July	185	14,917	15,102	178	16,440	16,618	190	15,586	15,776	176	12,548	12,724	141	12,291	12,432
	1,294	*103,193*	*104,487*	*1,251*	*105,934*	*107,185*	*1,152*	*99,968*	*101,120*	*1,218*	*93,481*	*94,699*	*1,283*	*85,189*	*86,472*
August	187	14,661	14,848	188	15,141	15,329	183	16,513	16,696	172	13,660	13,832	176	13,633	13,809
	1,481	*117,854*	*119,335*	*1,439*	*121,075*	*122,514*	*1,335*	*116,481*	*117,816*	*1,390*	*107,141*	*108,531*	*1,459*	*98,822*	*100,281*
September	167	14,230	14,397	141	14,428	14,569	231	15,866	16,097	160	13,279	13,439	148	12,747	12,895
	1,648	*132,084*	*133,732*	*1,580*	*135,503*	*137,083*	*1,566*	*132,347*	*133,913*	*1,550*	*120,420*	*121,970*	*1,607*	*111,569*	*113,176*
October	180	15,839	16,019	155	13,982	14,137	166	16,389	16,555	161	13,564	13,725	170	15,091	15,261
	1,828	*147,923*	*149,751*	*1,735*	*149,485*	*151,220*	*1,732*	*148,736*	*150,468*	*1,711*	*133,984*	*135,695*	*1,777*	*126,660*	*128,437*
November	194	13,389	13,583	133	12,273	12,406	181	14,849	15,030	192	13,087	13,279			
	2,022	*161,312*	*163,334*	*1,868*	*161,758*	*163,626*	*1,913*	*163,585*	*163,498*	*1,903*	*147,071*	*148,974*			
December	187	14,018	14,205	141	12,612	12,753	203	14,699	14,902	150	11,619	11,769			
Totals	*2,209*	*175,330*	*177,539*	*2,009*	*174,370*	*176,379*	*2,116*	*178,284*	*180,400*	*2,053*	*158,690*	*160,743*			

NOTE:—The figures in italics represent the cumulative totals by month under each classification.

Commonwealth of Pennsylvania

DEPARTMENT OF LABOR AND INDUSTRY

DIRECTORY OF OFFICES

Harrisburg: .....Office of the Secretary,
Industrial Board,
Workmen's Compensation Board,
South Office Building,
Bureau of Bedding and Upholstery,
400 North Third Street,
Bureau of Employment,
Executive Bureau,
Bureau of Industrial Relations,
Bureau of Industrial Standards,
Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Statistics,
Bureau of Workmen's Compensation,
Bureau of Women and Children,
South Office Building,
State Workmen's Insurance Fund,
Fourth and Blackberry Streets,

BRANCH OFFICES

Allentown: .....Lehigh Valley State Employment Office,
529 Hamilton Street.
State Workmen's Insurance Fund,
304 Colonial Building.

Altoona: .....Cooperative State Employment Office,
Post Office Building.
Bureau of Rehabilitation,
Workmen's Compensation Referee,
Commerce Building.
State Workmen's Insurance Fund,
333 Central Trust Building.

Dubois: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Deposit National Bank Building.

Erie: .....State Employment Office,
1026 French Street.

Franklin: .....State Workmen's Insurance Fund,
413 Franklin Trust Building.

Greensburg: .....State Workmen's Insurance Fund,
306 Coulter Building.
Workmen's Compensation Referee,
608 First National Bank Building.

Harrisburg: .....State Employment Office,
Second and Chestnut Streets.

Hazleton: .....Bureau of Inspection,
713 Hazleton National Bank Building.

Johnstown: .....Bureau of Inspection,
427 Swank Building.
State Employment Office,
219 Market Street.
State Workmen's Insurance Fund,
910 U. S. National Bank Building.

Kane: .....Workmen's Compensation Referee,
Kane Trust and Savings Building.

Lancaster: .....Cooperative State Employment Office,
Y. M. C. A. Building.
Bureau of Inspection,
Workmen's Compensation Referee,
Woolworth Building.

Lock Haven: .....State Workmen's Insurance Fund,
214 Vesper Street.

McKeesport: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Meadville: .....Bureau of Inspection,
Masonic Building.

New Castle: .....Cooperative State Employment Office,
Y. M. C. A. Building,
West Washington Street.

Oil City: .....Cooperative State Employment Office,
Y. M. C. A. Building.

Philadelphia: .....State Employment Office (Main Office),
Bureau of Rehabilitation,
1519 Arch Street.
Bureau of Inspection.
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Workmen's Compensation Board,
Manhattan Building, Fourth and Walnut Streets.
Bureau of Women and Children,
1924 Chestnut Street.
State Workmen's Insurance Fund.
1004 Commercial Trust Building.

Pittsburgh: .....Bureau of Inspection,
Bureau of Rehabilitation,
Bureau of Workmen's Compensation,
Workmen's Compensation Referee,
Fulton Building.
State Employment Office.
622 Grant Street.
State Workmen's Insurance Fund,
904 Park Building.

Pottsville: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
1 Ulmer Building.
State Workmen's Insurance Fund,
Baird Building.

Reading: .....State Employment Office,
533 Penn Street.

Scranton: .....State Employment Office,
116 Adams Avenue.
Bureau of Inspection,
Workmen's Compensation Referee,
State Workmen's Insurance Fund,
418 Union National Bank Building.

Sunbury: .....State Workmen's Insurance Fund,
9 Witmer Building.

Towanda: .....State Workmen's Insurance Fund,
216 Poplar Street.

Wilkes-Barre: .....Bureau of Rehabilitation,
Workmen's Compensation Referee,
Coal Exchange Building.
State Workmen's Insurance Fund,
174 Carey Avenue.

Williamsport: .....Bureau of Inspection,
Workmen's Compensation Referee,
Heyman Building.
Cooperative State Employment Office,
Y. M. C. A. Building,
343 West Fourth Street.

York: .....Bureau of Workmen's Compensation,
Central National Bank Building.
State Workmen's Insurance Fund,
917 Wayne Avenue.

Note. State Employment Offices are conducted in cooperation with the United States Employment Service.